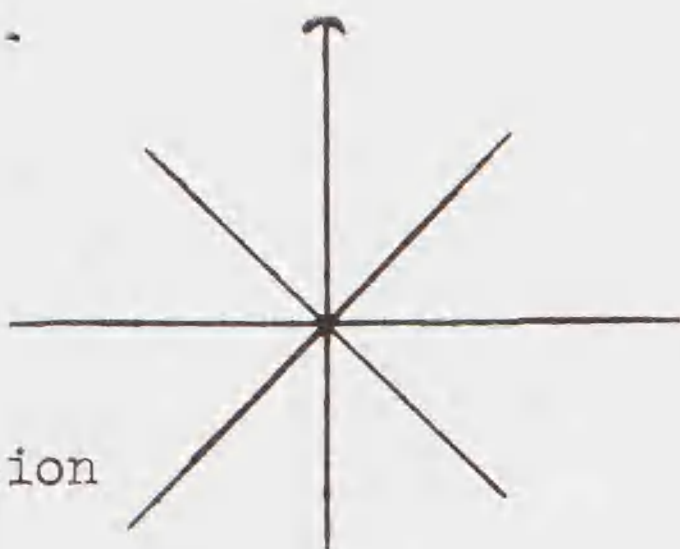


Ship
Direction



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

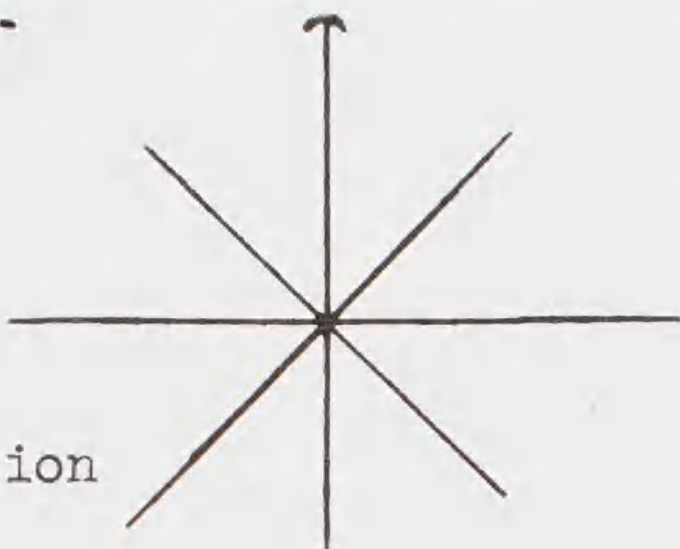
Date 18 April 67
Pg. # 1

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

1430					
1445	Bl. brant	15			Breaks water
1450	Soot/sld.	6			Begin observation
1450	Phalarp.	5	ee		Moderate Fog
1451	S/S	40			
1452	S/S	12	ee		
1454	S/S	17	ee		on H ₂ O
	SKUA	1			chasing 1 S/S
1455	S/S	50±10			on H ₂ O
1458	Shore bird sp.	15	NW		
1502	Loon sp.	32± 50±5	NW		
1504	Br. Pelican	1			on H ₂ O
1508	shorebird sp.	6	NW		
1510	Gull sp	1	W		imm
1513	Shorebird	6	NW		
1515	W. Gull	1			Following
	Cal. Gull	1			
1519	Shorebird	15±5	NW		
1527	"	6	NW		
1529	Loon Sp.	50±10	NW		
1530	Pelagic Corm.	1	W		
1535	H. Phalarope?	1500±500			on H ₂ O
1537	Cormorant	1	W		Brandt Brandt or D.C.
1540	Pale-foot	1			on H ₂ O
1540	Shorebird	25±5	W		
42	S/S	1	SW		
47	Shorebird	100±20	NW		
47	W. Gull	1			ed.
50	Shorebirds	25±5	NW		
55	"	10	NW		
58	Loon	1	NW		
1602	"	1	NW		
1603	"	1	NW		
04	Shorebirds	5	N		
05	"	20±5	N		
06	S/S	1	ee		
09	Loon	1	N		

Ship
Direction



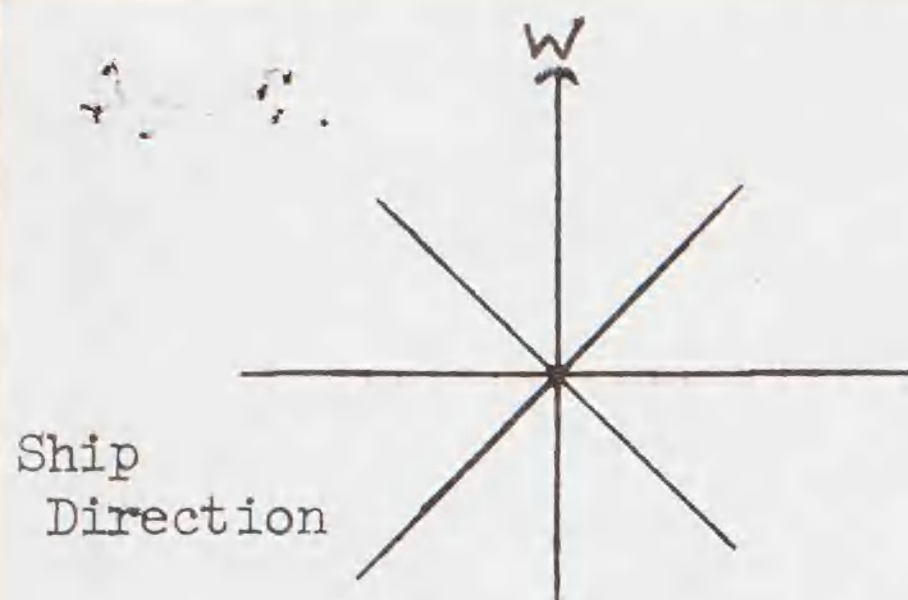
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Date 18 April 67
Pg. # 2

SPECIMEN
or

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	1611	Pib Gull	1			following ad
	1615	Loon	1	N		
TF	1616	"	5	N		
TF	1616	Shorebirds	12	N		
	1617	Loon	1	N		
TF	1621	"	9	NW		
	1623	S/SL	1	ce		
	1627	Shorebirds	5	N		
FF	1627	Bonaparts	3			(ad?)
		Gull sp	2			Imm
		W. Gull	11			ad
		S/SL	1			
		Pale foot	1			
		Purple				
TF	1630	Loon s	18	N		3 } 33-47
TF	1633	"	15	N		118-34
	1636	S/SL	3	N		
TF	1637	Shorebirds	8	N		
	1646	Loon s	8	N		
	47	"	3	N		
	55	"	6	N		
	1700	BRANT	1	N		
	1703	"	2	N		
	1707	PHAL. SP.	4	N		
	1708	SOOTY/SL	5	W		
	1712	"	11	S		
	1713	"	4	E		
	1715	"	6	E		
	1718	"	6	E		
	1720	"	6	E		
	1720	"	3	E		
	1725	"	1	E		
	1726	GULL SP.	1	E		
	1730	S/SL	6	⊙		
	1737	N. PHAL.	13			flushed from H ₂ O S
	1809	S/S	2	ce		
	1817	S/S	1	ce		
	1826	Gull sp	2			H.G., or Cal. G., both adults.
	1828					Sunset



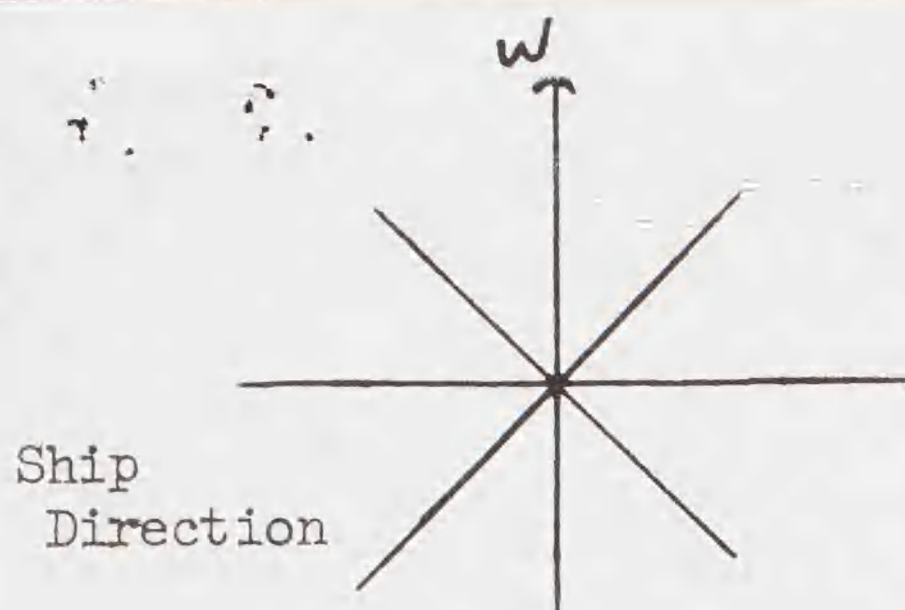
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

SPECIMEN NON - GRID
or

Date 19 APRIL 1967
Pg.# 1

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0529					SR; BEGIN OBS.
0535	S/SB	1	O		
0540	S/SB	2	O		
0545	S/SB	2	E		
0549	S/SB	1	O		
0550	"	1	S		
0552	"	2	S		
0555	"	1	S		
0558	"	3	S		
0600	"	4	O		
0602	"	2	S		
0603	GULL SP.	1	N		distant
0608	H. GULL	1			Imm.; following
0610	S/SB	5	S		
0615	"	2	N		
0620	"	6	S		
0622	"	2	S		
0624	"	2	S		
0626	"	3	S		
0627	"	3	E		
0628	"	1	E		
0630	"	2	S		
0632	"	4	S		
0634	"	4	S		
0635	"	3	S		
0640	BFA	1			following
0654	S/SB	3	S		
0655	"	3	S		
0656	"	2	O		
0700	BFA	2			on H ₂ O
0705	S/SB	2	N		
0715	S/SB	1	S		
0720	"	2	S		
0723	"	4	S		
0724	"	4	S		
0730	"	1	S		
0753	S/S	14			All separate sighting
0755	S/S	4	SW		along edge of rain squall
57	S/S	2	SW		
0800	S/S	2	SW		enter rain squall
0802	S/S	2	W		
0804	S/S	1	W		
0805	S/S	5	W		



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

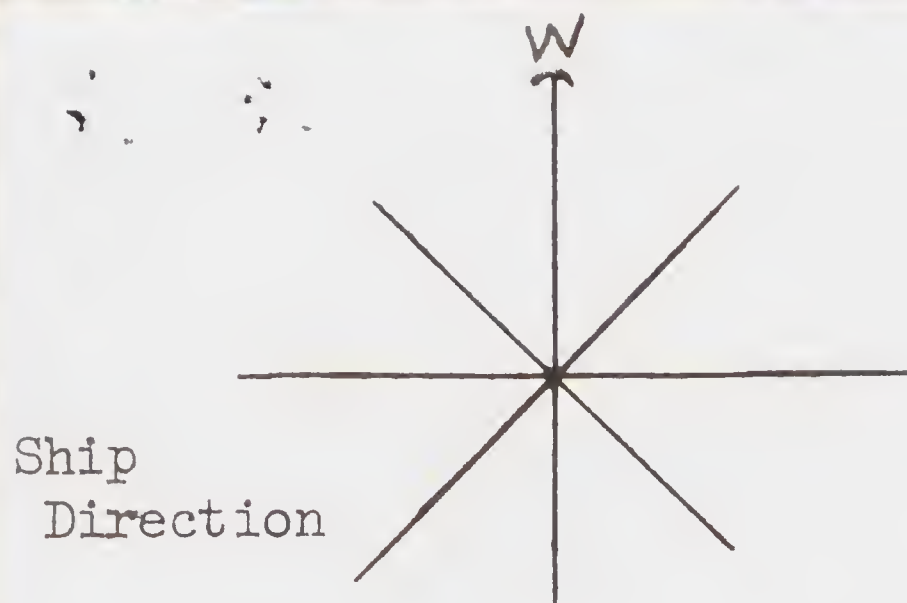
Date 17 Apr. '67
Pg. # 2

SPECIMEN

or

TIME SPECIES # DIR. BAND NO. REMARKS

0806	S/S	4	W		
0807					
0811	S/S	1	N/E		
0814	S/S	3	NW		
0815	"	1	S		
0825	"	1	NW		
0827	"	2	W		
28	BFA	2			following, no white rump.
32	S/S	1	SW		
35	"	1	W		
37	"	2	SW		
38	"	1	NW		
40	"	1	NW		
43	"	1	NW		
44	"	1	NW		
46	"	1	NW		
49	"	1	NW		
51	"	3	W		
52	"	2	NW		
59	"	3	NW		
0900	"	2	NW		
03	"	1	NW		
04	"	1	N		
06	"	1	NW		
09	"	2	NW		
10	"	5	NW		
10	Gull sp	1			on H ₂ O Ad
18	S/SL	1	N		
20	shear/pet	1	S		Man-o-war type Jelly Fish End Brown
34	BFA	4			Following
50	Pale-foot	1	S		
51	S/SL	2	W		
53	"	3	NW		
55	"	1	N		
1005	Tanager	1			
1007	W. Gull	3			Following Ad
1018	Tanager	1			
1025	S/SL	1	S		on H ₂ O
1037	W GULL	1	W		
1050	S/SL	3	S		
1051	"	4	S		



Ship
Direction

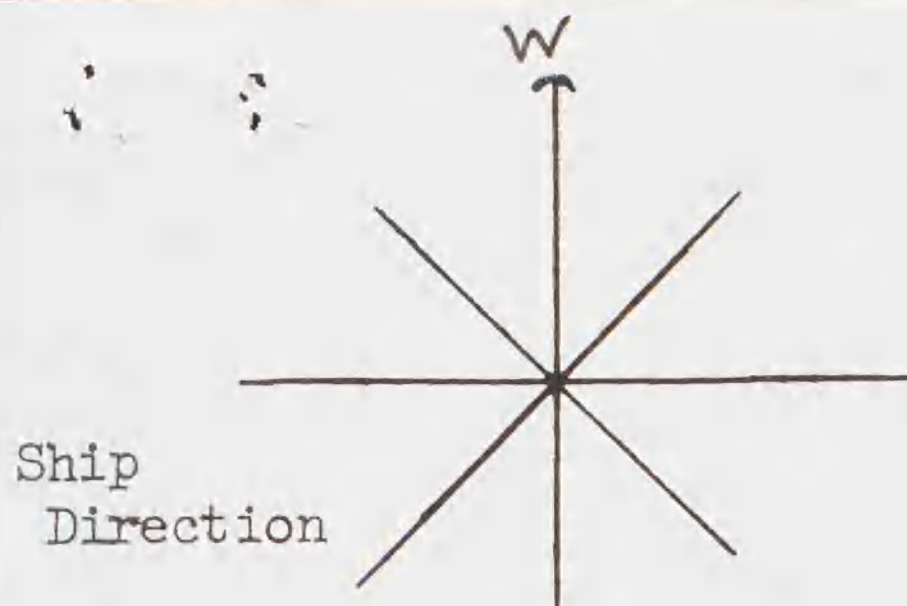
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

SPECIMEN *NoN GRID*
or

OBSERVERS:

Date *19 APRIL 1967*
Pg.# *3*

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1054	<i>S/Sb</i>	2	<i>S</i>		
1055	<i>S/Sb</i>	5	<i>S</i>		
1056	<i>S/Sb</i>	3	<i>S</i>		
1057	<i>BFA</i>	3			<i>following, all with dark rumps.</i>
1058	<i>S/Sb</i>	2	<i>S</i>		
1059	"	5	<i>S</i>		
59	"	3	<i>S</i>		
1101	"	1	<i>E</i>		
1104	"	3	<i>SW</i>		
1107	"	3	<i>S</i>		
09	"	3	<i>S</i>		
09	"	3	<i>S</i>		
1111	"	7	<i>S</i>		
1114	"	9	<i>S</i>		
1116	"	9	<i>S</i>		
17	"	2	<i>S</i>		
18	"	6	<i>S</i>		
21	"	8	<i>S</i>		
23	"	7	<i>S</i>		
25	"	6	<i>S</i>		
28	"	4	<i>S</i>		
28	"	3	<i>S</i>		
29	"	3	<i>S</i>		<i>flushed from water.</i>
30	"	3	<i>S</i>		
32	"	2	<i>S</i>		
33	"	3	<i>S</i>		
35	"	2	<i>S</i>		
37	"	3	<i>S</i>		
38	"	2	<i>S</i>		
42	"	4	<i>S</i>		
43	"	2	<i>S</i>		
46	"	5	<i>S</i>		



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

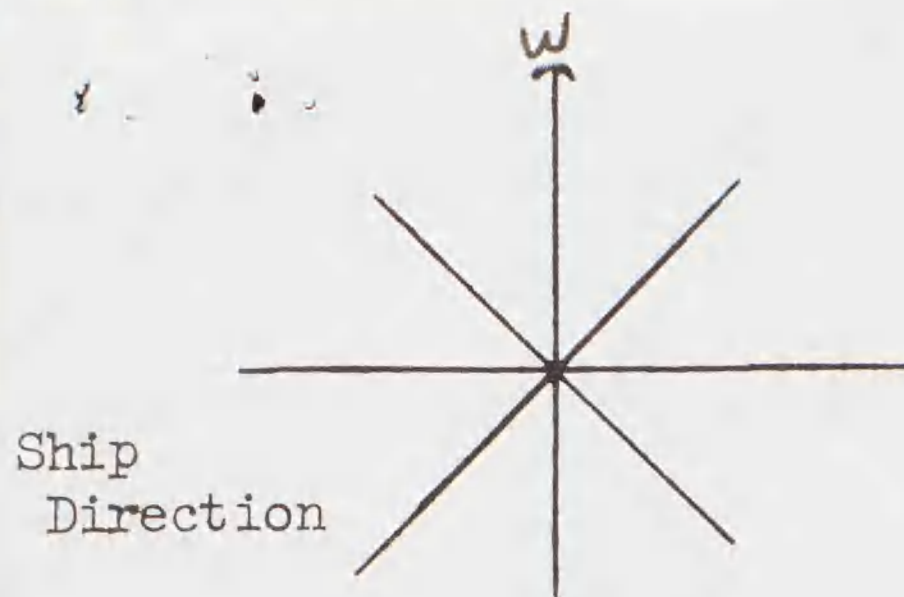
Date 19 April 67
Pg. # 4

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

1149	S/SL	7	S		
51	"	4	S		
53	"	3	S		
54	"	5	S		
55	"	1	N		
56	"	3	S		distant
58	"	6	S		
1200	Subi's Gull	1	ce		flushed from H ₂ O
1201	S/SL	3	S		
03	"	5	S		
03	SKUA	1	ce		flushed from H ₂ O
04	Fulmar	1	ce		light
05	S/SI	6	S		
07	"	3	SW		
08	"	1	SW		Dark underwings
10	BFA	5	ce		Following
13	S/SL	1	NW		
17	"	1	SW		
20	"	4	ce		
24	"	3	SW		
29	"	5	SW		
1240					Enter Grid
1243	S/SL	1	ce		
1258					Seal (1) 34-58 122-07
1259					Seal (1) 34-59 122-10
1303	WRSP	1	W		
1304	S/SL	1	W		
1310	"	1	S		
1314	"	2	W		
1320	BFA	3			following - all with dark rump.
1323	S/SL	1	W		
1340	"	1	S		
1415	BFA	4			Following, all with dark rump
1417					Cal. Sea Lion 1 - 34-59 122-24
1422	Storm Pet.	1	W		
1425	BFA	5			Following, all w/dark rumps
1428					Fur Seal? 2 (flippers out of H ₂ O)
1432	S/SI	1	NW		34-59 122-26

Non
Grid
Grid



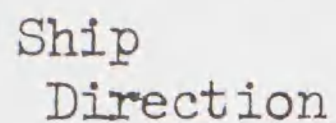
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Date 19 April 1967
Pg. # 5

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1445	Herring Gull	1			adult following (still following at 1500)
1448	WRSP	1	W		still following at 1840
1451	BFA	6			Following, 1 w/white rump, rest dark.
1456	Small Pterodroma	1			Followed briefly: very white underwings, flight distinctive (suggestive of p. puffinus). Head and back con-color: P. cookii?
1528	Small Pt.	1	W		white underparts, small, distant, flight like that of Bulwer's Pet.
1532	WRSP	2	ce		
1547	"	1	ce		
1552	Shear/Pet	1	N		distant
1555	Storm Petrel	2	ce		
1600	WRSP	1	0		
1610	H. GULL	1	0		Ad.; following (still following at 1700)
1611	WRSP	1	0		
1613					seal sp. (1) 34-59-122-43
1617	WRSP	1	0		
1620	PTEROSP.	1	N		small, white underparts, distant
1635	WRSP	2	0		
1655	S/SI	1	N		white underwing
1705	WRSP	1	W		
1732	"	2	SW		
1810	Storm Pet	1	S		
1800					Seal(1) 34-59 123-04
1801	WRSP	2	ce		
1815	"	1	W		
1818					Seal(2) 34-59 123-07
1818	WRSP	5	ce		
1820	"	2	ce		
TF 1825	Small Pt.	8	W		white below, all black above, nearly all white underwings, flapping flight,
1830	WRSP	1	W		
1832	Shear/Pet	1	S		
1835	WRSP	2	W		
1839	Storm Pet.	1	SW		
1840	H. Gull	1	ce		Ad Following
1845	BFA	2	ce		"
1846	WRSP	1	e		
1847	"	1	e		
1849					Sunset close observations



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

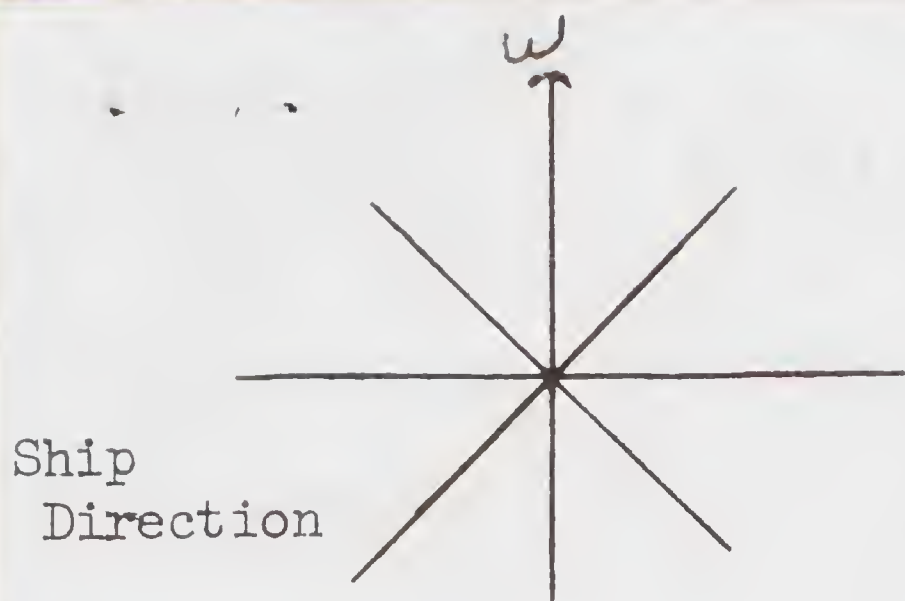
OBSERVERS:

Date 19 April 67
Pg.# 1

SPECIMEN
or

Nocturnal Grid

SI-MNH-958-e
Rev. 5-66



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

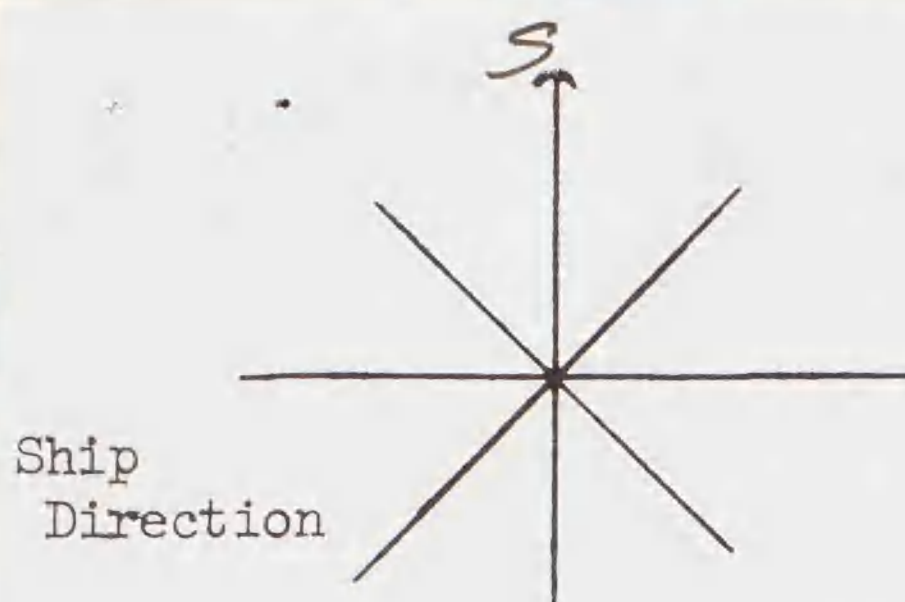
OBSERVERS:

Date 20 April 1967
Pg.# 1

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

0545					SUNRISE
0545					begin observations
0604	H.G.	1			ad. following. Shoddy right primaries
0631	Sm. Pterodr.	1	N		light underwing, all most no black border: back
0655	Sm. Pterod.	1	N		Pretty dark
0702	Shear/Pet	1	NW		Same as above
0710	HG	1			distant, light underside
0713	BFA	1			still following: ad./w shoddy right primaries
0717	Sm. Pterod.	1	N		following: Dark rump.
0720	"	1	N		same ^{colors} as 0631
0730	"	2	N		"
0730	R. Phal	21	S		
0731	Gull on Jaeger	1	W		
0738	W R SP	1	W		
0742	Sm. Pterod.	1	N		Light as 0631, head & back con-color.
0745	R. Phal	2	NW		
0750	BFA	2			Following, dark rump
0753	Phal. sp	7	N		white below.
0757	Shear/Pet	1	NW		"
0804	"	1	N		"
0805	RED PHAL.	11			flushed from H2O W
0807	PTERO. SP.	2	W		distant
0810	RTTB	1	S		
0816	R. Phal.	30 ± 4	E		flushed from H2O to E
0826	"	24			on H2O
0840	Phal. sp.	5			"
0841	RED Phal.	9			"
0851					2 Dark Porpoise SE - 35-00 126-00
0908	Small PT.	1	SE		white Below
0920	R. Phal.	18	W		
0933	Small PT	1	E		All dark, possibly Heavies
0934	R. Phal.	20 ± 5	NW		
0937	H. Gull	1	W		Following Ad, 9th primary missing
0950	Small PT.	1	S		Dark head & Back, secondaries gray brown, white
0955	"	1	S		below, distinct Black Border on wings - uniform
1005					all the way around
					CC to S



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

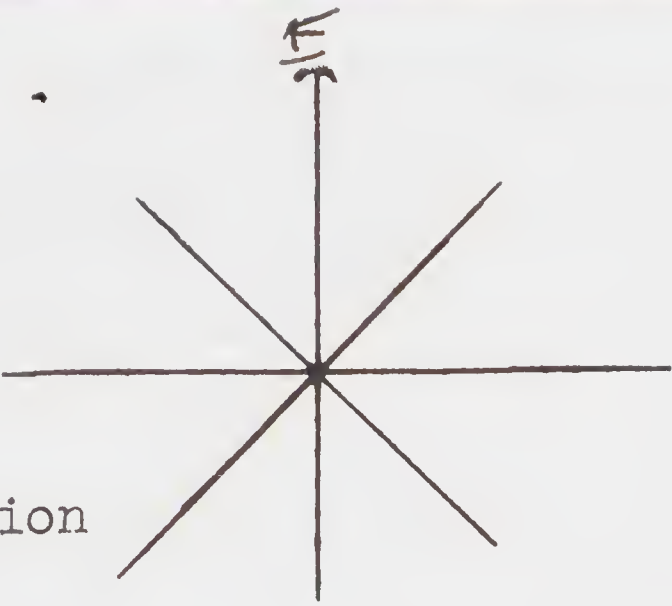
OBSERVERS:

Date 20 Apr '67
Pg.# 2

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

1004	R. Phal	6			on H ₂ O
1004	Pterod. A.P.	1	☉		very light underwings, molt on wings.
1005	BFA	5			following, 1 w/white rump.
1025	R. Phal	8	W		
1030	WRSP	3	☉		heavy molt - scapular wing coverts
	Sm. Pter.	2			
1040	Sm. Pter	3	}		sitting on H ₂ O
	WRSP	2			
43	Sm Pter	2	}		on H ₂ O
	WRSP	1			
45	Black-belly plover	1	NW		
46	Sm Pter	1	NW		
47	"	1	N		fairly dark underwing border
47	WRSP	1	☉		
1059	R Phal.	33			on H ₂ O, 5 in full Breed. plum.
1121	WRSP	1			on H ₂ O
1125	new WRSP	1			
1145	WRSP	1	☉		
1153	STORM PETREL	1	☉		
1200	WRSP	1	S		
1259	R. Phal	25 ± 5	☉		
1320	new WRSP	1			Left TJL NOT retrieved
1320	H. G.	1			coll BAH, TJL
1358	WRSP	1	S		ad.
1515	R. Phal	3	☉		
1530					CC To East
1539	WRSP	1	☉		
1620	BFA	4			following: 1 w/white rump, rest dark
1630	s/s	1	NE		light underwing
1632	Sm. Pterod.	1	N		very light underwing.
1635					huge seal with prominent crown (=forehead)
1643	s/s	1	NE		34-12 - 126-13



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

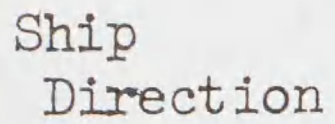
Date 20 Apr '67
Pg.# 3

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

1720	R. Phal.	2	S		
1724	Ptero. sp.	1	S		medium size, distant
1726	P. cooki	1	N		
1728	WRSP	1	W		
1730	WRSP	1	W		
1754	S/Sb	1	N		
1755	WRSP	1	N		
1805	BFA	8	ce		Following 1 with white rump
1810	WRSP	1	ce		
1816	WRSP	1	ce		

1858 ————— SUNSET close observation



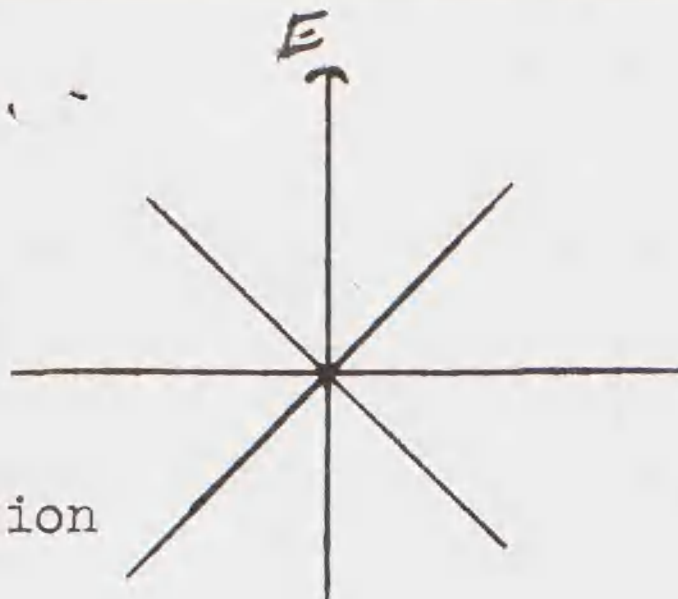
OBSERVERS:

Date 20 APRIL 1967
Pg.# 1

[illegible]

2200					begin obs.
2250	Phil. sp.	1	0		
2350	WRSP	1	0		
0000					close obs.

Ship
Direction



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

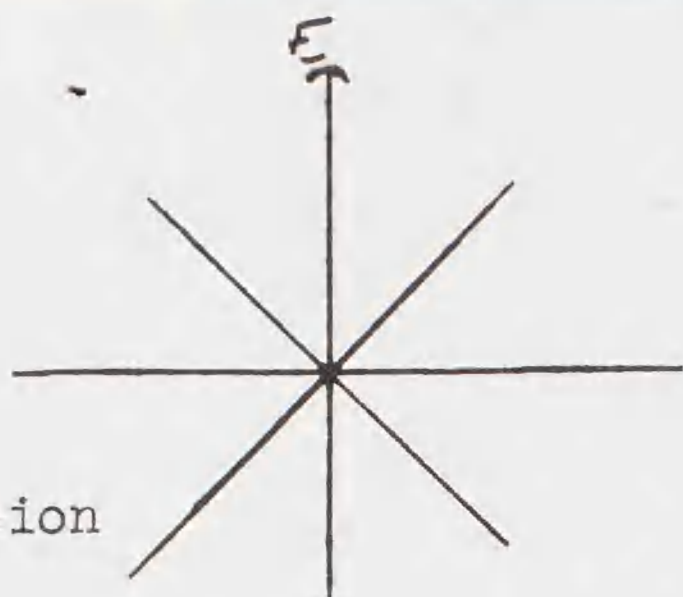
Date 21 April 67
Pg. # 1

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

0537					Summer region of concentrations
0538	BFA	1			Following, No white rump
0615	S/SL	1	N		
28	"	1	NE		
0703	WRSP	5	EE		
0703					34-12 123-03 1st seen whales 4 1 large bull 20 ft long
0718	H. Gull	1	EE		Ad Following
0725	BFA	2	EE		Following 1 with white rump
0729	BFA	3	EE		" " " "
0730	WRSP	1	EE		
0750	BFA	5			1 w/white rump. (mottled), 1 w/injured leg
0805	WRSP	1	EE		
0840	HG	1			probably same as 0718, but has not been present for 45 minutes.
0903	S/SL	1	N		
1007					
1028	WRSP	1	EE		Seal, small, long light colored whiskers, (Not over 3 ft long)
1042	"	1	N		34-12 122-24
1044	W. Gull	1	SW		
1046	R. Phal	5	NE		Ad coll TJZ
1056	BFA	8	EE		Following (1 w/mottled white rump, 1 w/injured leg)
1110	Shorebird sp.	15-25	EE		distant
1115	WRSP	5			sitting on H ₂ O
1128	R. Phalar. Black-belly? Plover?	4	S		
1143	Storm Pet	1	N		
1145	WRSP	2	EE		
1153	S/SL	1	N		(other?)
1207	JACGER	2			both light ph.; 1 long-tail; flushed from H ₂ O to N;
1215	WRSP	3	EE		long-tail gave 5-7 second chase to EE 2nd
1216	WRSP	1	EE		
1220	WRSP	2	EE		
1305	Sabine Gulls	2	EE		on H ₂ O Ad
1337	Storm Pet	1	EE		
1340	WRSP	1	IV		
1342	R Phal	2			on H ₂ O
1342	WRSP	1	SE		
1353	WRSP	2	EE		
1404	WRSP	2			on H ₂ O; 2 appeared to have dark rumps
	Storm Pet	2			

Ship
Direction



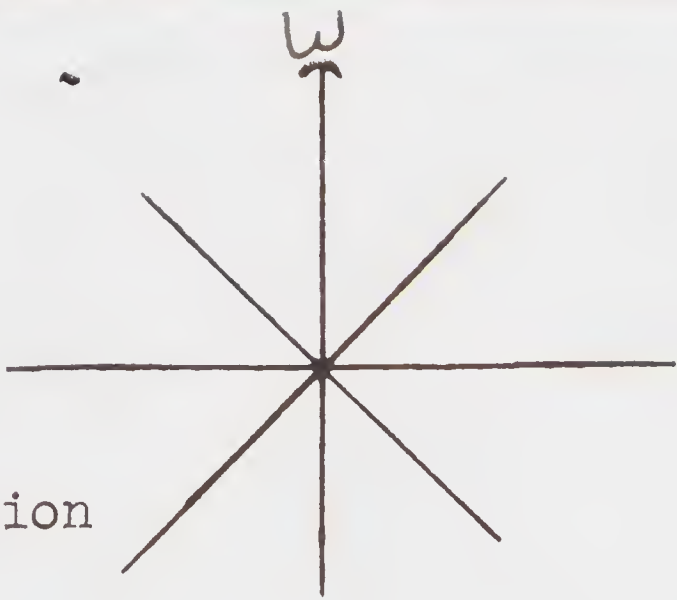
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Date 21 Apr '67
Pg. # 2

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1411	RP	1	SW		high (150')
1415	WRSP	1	SW		
1431	RP	2			on H ₂ O
1435	WRSP	1	SW		
1446	Tropic. AP	1			- on H ₂ O
1500					Arrive point D.
1515					SKIFF OVER
1520	BFA	5			all w/dark rump, one w/injured leg
1545					SKIFF IN
1550	JAEGER	2			1 light (Pomarine), 1 dark (?); flushed from H ₂ O
1553	RED PHAL.	2	S		
1645	WRSP	1	SW		
1655	W. Gull	3	SW		1 coll TIZ 2 hit but flew away Adults
1657	BFA	12	SW		Following
1755	BFA	4			following - 1 w/injured leg.
1822	R. Phal	15	SW		7 in nuptial plumage, rest half way.
1836					Sensed, close observations



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Date 21 Apr '67
Pg.# 1

SPECIMEN
or

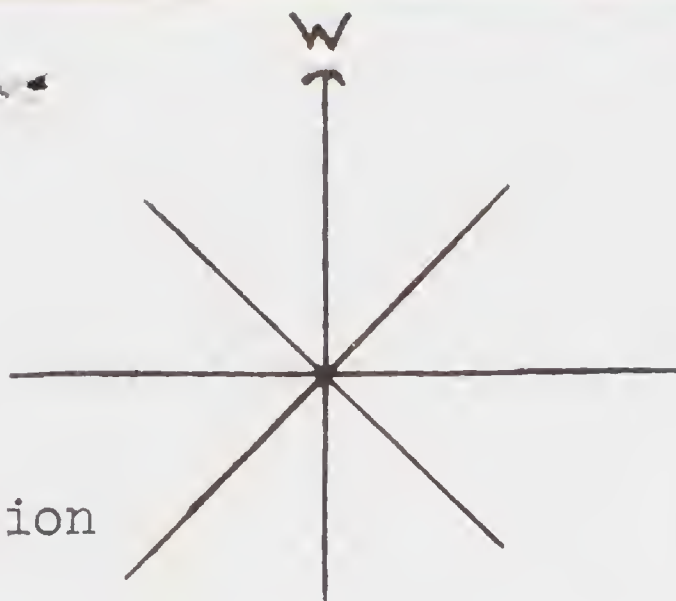
TIME SPECIES # DIR. BAND NO. REMARKS

2045 ——— *Begin*

2215 BFA 1
SP 1

2245 ——— *Close*

Ship
Direction



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

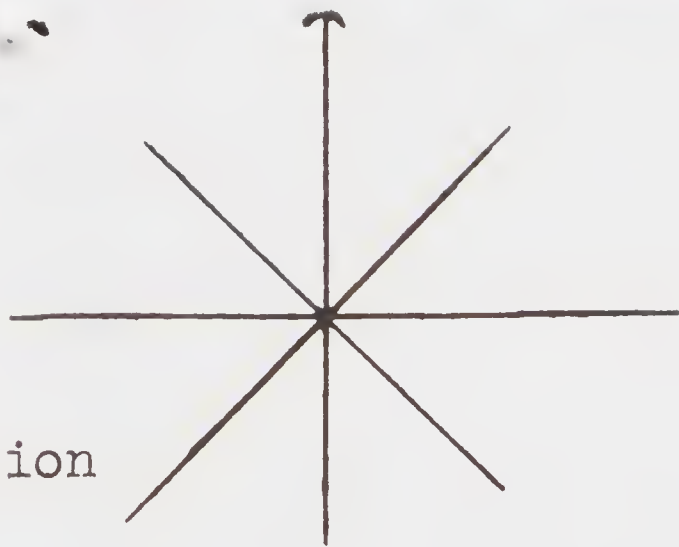
OBSERVERS:

Date 22 APRIL 1967
Pg.# 1

SPECIMEN GRID
or

TIME SPECIES # DIR. BAND NO. REMARKS

0537					SR; begin obs.
0615	WRSP	1	D		
0640	BFA	1			dark rump; following
0647	R Phal.	3			on H ₂ O
0707	BFA	1			white rump; following
0757	"	3			"
0842	B Phal	18			one with white rump
0852	* SPet.	1	☉		Breeding Plumage
0910	R. Phal	30±5	w		
0920	"	6			high
→ 0940					change course to 090: heading for
1045	WRSP	2	☉		port for repair.
1159	R phal	1			on H ₂ O
1214	Sm. Pterod.	1	☉		light underwing, distinct "m" pattern on wing, probably P. cookii.
1220	WRSP	2	☉		
1235	R. Phal	3			on H ₂ O
1238	WRSP	1	☉		
1245					Baird's Porpoise - 2
1315	BFA	2			following (1 with white rump)
1326	WRSP	1	☉		
→ 1330					Temporary repair completed; resume track W
1450	R. Phal	1	SW		
1510	WRSP	1	☉		
1530	P. cookii?	1	IV		
1531	BFA WRSP	2	☉		
1602	R.P.	100±25			on H ₂ O
1603	WRSP	1	☉		
1632	WRSP	2	☉		
1651					Porpoise (6-8)
1730	WRSP	1	☉		
1745	R P	200±50	w		on H ₂ O
1755	"	250±25	w		
1757	WRSP	1	☉		white below dark above
1803	Small Pt	1	☉		
1803	Antarctic Petrel	2	☉		on H ₂ O 1 call TJZ
1830					Sperm Whale 3
1837	WRSP	1	☉		
1840	BFA	3			1 w/white rump
1851					Sunset - close observation



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

SPECIMEN
or

Nocturnal Guild

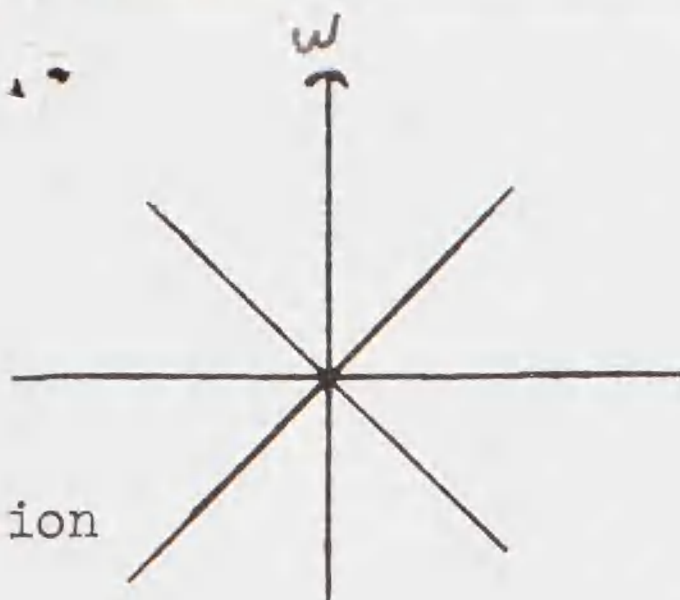
OBSERVERS:

Date 22 April 67
Pg. # 1

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
2045					Begin observations
2245					Close "

SI-MNH-958-e
 Rev. 5-66

Ship
Direction



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

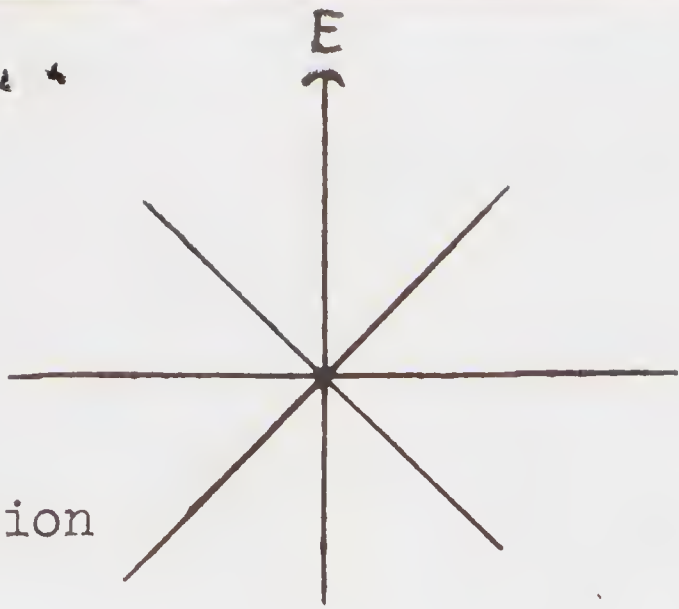
OBSERVERS:

Date 23 April 1967
Pg.# 1

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

0544					SUNRISE, begin observations
0600	S/SI	1	NW		light underwings
0615					sperm whale - 1 breaching: ca. 3/4 of body came out of H ₂ O. <u>33-24 125-36</u>
0749	Bird	1	⊙		
0752	P. cookii ?	1	⊙		close- very white underwing, con-color head & back, distinct "W" pattern, white patches on dorsal surface of wing probably caused by molt. Flight distinctive - a cross tween pterodroma and p. puffinus.
0756	P. cookii	1	⊙		
0813	"	1	⊙		same marks as 0752 except less white on upper wing
0827	R. Phal	1	⊙		distant, but brilliant white underwing
0836	P. tern. sp.	1	⊙		
0859	Phal. sp.	1	⊙		this bird distant; distinct white patches on dorsal surface of primaries
1027	4th Pterodroma	1	⊙		
1030	P. cookii ?	5			on H ₂ O
1130					change course to 180
1222	R. Phal	1	⊙		on H ₂ O
1230	"	1	⊙		"
1304	WRSP	1	⊙		
1317	BFA	1	⊙		
1344	WRSP	1	⊙		
1440	S/SI	1	W		
1450	BFA	1	⊙		
1512	WRSP Leach's	1	⊙		coll TUL
1600	WRSP	1	⊙		on H ₂ O
1615	WRSP	2			on H ₂ O
	P. cookii ?	1			
1640	R. Phal.	1	⊙		
1700					CC To E
1705	BFA	1			Following
1827	WRSP	1	⊙		
1830	BFA	1			following
1850	Phal. sp.	1	⊙		
1859					SUNSET; close to.



Ship
Direction

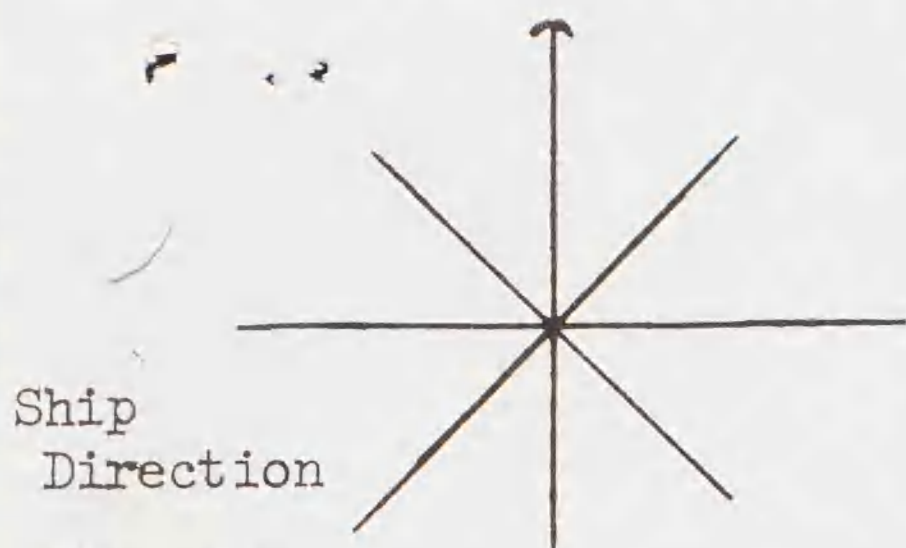
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Date 23 APRIL 1967
Pg.# 1

SPECIMEN NOCTURNAL GRID
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
2330					
2355	BFA	1			begin obs.
2357	BIRD	1			following
0130					close obs.



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

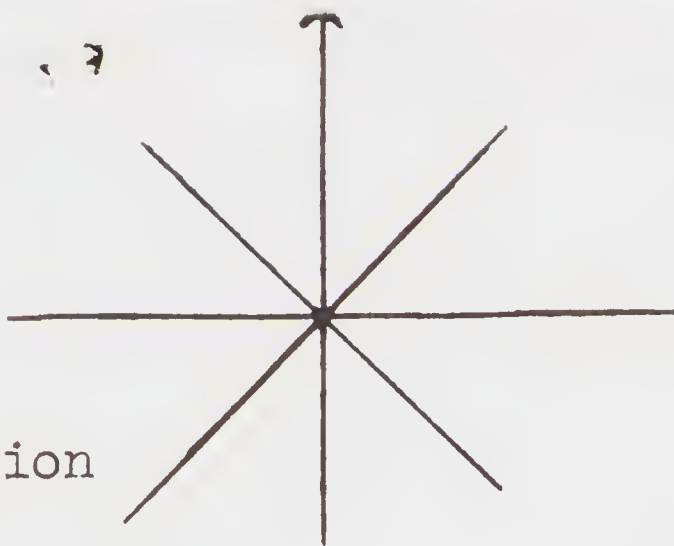
Date 24 April 67
Pg. # 1

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

0529					Sunrise begin observations
0607	WRSP	1	ce		
0635	BFA	1	ce		Following
0700	WRSP	1	ce		
0718	P. cookii?	1	W		con color head & back, distinct fairly wide black border on wing white below.
0725	R. Phal	1	W		
0830	storm Pet	1	ce		
0843	WRSP	1	ce		
1015	"	1	E		
1058	R. Phal	1	N		
1102	Little Bird	1	ce		
1105	Bird				Baird's Dolphin 3 - <div>32-27 123-10</div>
1131	WRSP	1	ce		
1140	WRSP	1	ce		
1152	WRSP	1	ce		
1152	BFA	2			both w/dark rump, following
1233	PTERO. SP.	1	N		distant
1245	WRSP	1	O		
1255					KILLER WHALE (1) - <div>32-26 122-53</div>
1315	R. Phal	1	ce		
1333	"	1	ce		on H ₂ O
1350	WRSP	5	a		"
1432	R. Phal.	2			on H ₂ O
1442	"	1	ce		
1547	R. Phal.	1	N		
1620	Bird	1	ce		
1637	R. Phal	2	a		on H ₂ O
1730	Laysan Alb.	1			Following, very light pink bill.
	BFA	1			"
1731	R. Phal	15 ⁵⁵	S		
1732	R. Phal	9			on H ₂ O
1739	"	2			"
1745					man-o-war jelly fish getting thicker since
1800	Phal. sp.	4			
1813	BIRD	1	O		1600
1815	WRSP	1	O		plucked from H ₂ O south
1830	BFA	3			
1830	LAYSAN	1			following, BFA 2 dark rump, white
1840	BFA	5			following
1840	LAYSAN	1			SUNSET; cool.
1844					

Ship
Direction



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

SPECIMEN

or

Nocturnal Grid.

OBSERVERS:

Date

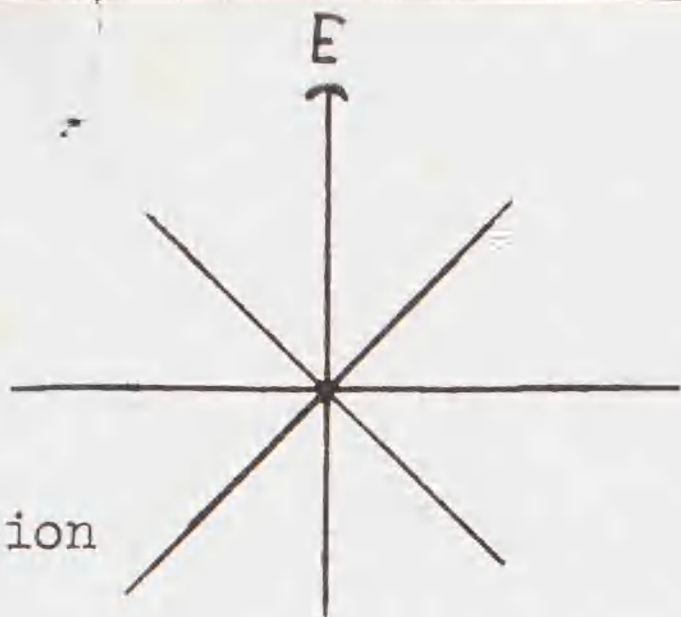
24 Apr '67

Pg. #

1

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
2040 2145	2040 Albatross	1 1			begin.
2155	bird	1			
2230	phalarope	3			

Ship
Direction



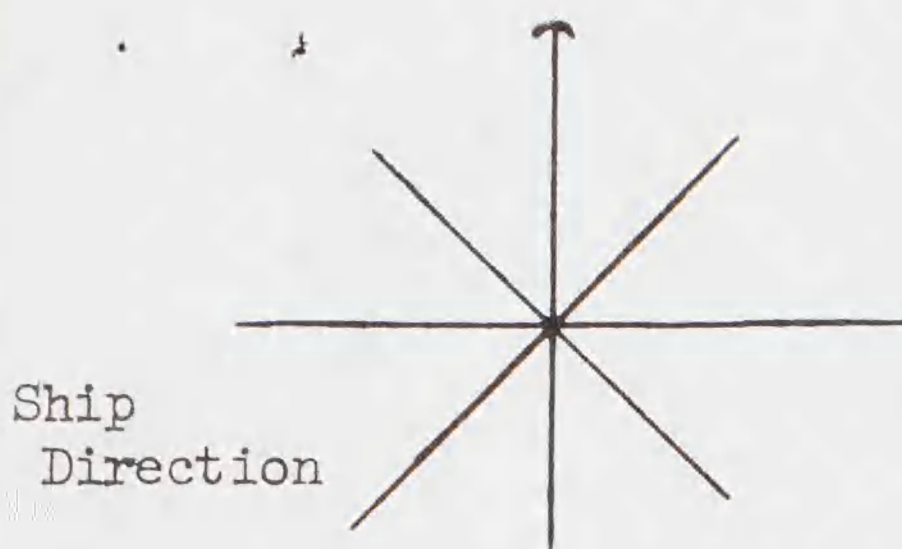
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

SPECIMEN *DIURNAL NON-GRID*
or

Date *25 APRIL 1967*
Pg. # *1*

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0520					SUNRISE; BEGIN OBS.
0540	BFA	3	☉		Following.
	Laysan A	1	☉		"
0550	BFA	4			" , all w/ dark rump.
0600	BFA	5			" one w/ dark white rump.
0609	Gull sp.	1			not well seen; small with distinct white areas in wing; no other field marks seen.
0610					seal sp. - 32-42 119-55
0624	BFA	8			1 w/ dark rump.
0730	S/S/	2	☉		light underwing
0731	S/S/	6	☉		LUW
0732	S/S/	4	☉		LUW
0736	BFA	8			Follow
0736	W. Gull	1			imm.
0737	S/S/	5			☉☉☉ - light underw.
0744	S/SL	6	☉☉		light underwings
0745	S/S/	3	☉		LUW
0747	S/S/	2	☉		primary molt, light underwing
0750	"	2	E		
0755	"	3	☉		
0757	Sabine's Gull	2	☉		
0759	S/S/	1	E		
0800	Blue-footed Booby	1	☉		good look close -
0805	S/S/	2	E		
0807	"	2	E		
0810	"	8	☉		
0812	"	5	E		
0812					seal (1) 32-50 119-35
0816	"	20	E		separate sightings
0817	"	1	E		heavy molt in primaries
0820	"	30 ± 5	E		
0820	"	23	E		
0821	"	4	E		
0824	"	6	E		



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

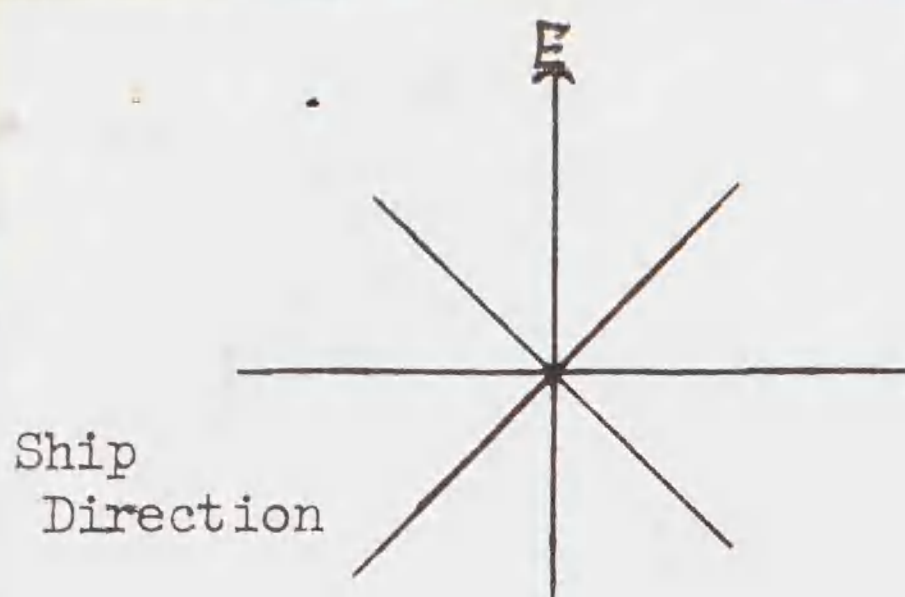
OBSERVERS:

Date 25 April
Pg. # 2

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

0826	S/S L	6	E		
0827	Gull sp	1	E		
0828					Imm sperm whale 1 32-49 119-31
0829	S/S L	60±10	⊙		
0830	"	13	E		
0831	"	7	E		
0833	L.T. Jaeger	1	S		Toward large flock of S/S L
0834	P. creatopus	1	ce		
0837	N. Phoebe	7	ce		on H ₂ O
0839	S/S L	4	E		
0841	S/S L	41	E		
0842	S/S L	4	E		
0845	"	150±25	E		
0850	L A	2	ce		Following ship
0851					Seal
0851	S/S L	50±10	S/E		32-46 119-25
0853	R. Audubon	2	ce		on H ₂ O
0855	Gull sp	1			Imm Following
0857					Seal (2) Surf
0859	S/S L	200±25	ce		32-45 119-23
0904	S/S L	100±25	ce		150±25 of H ₂ O S/E
0915	S/S L	60±10	⊙		
0916	W GULL	1			
F 0920	S/S L	100±25	⊙		Following
	P. G. Jaeger	2	⊙		up from H ₂ O
	Pom. Jaeger	1	⊙		light ph.
0921					Dall Porpoise (5); riding low wave
0925	S/S L	40±5	⊙		
0927					32-46 119-20
0928	S/S L	200±25	⊙		seal sp. - 32-47
0928	Pink Foot	4	⊙		119-19
0930	Pom. Jaeger	1	N		light ph.
0931	TORE SP.	2	N		Tem sp.
0932	GULL SP.	2	⊙		
0933	Jaeger sp.	1	⊙		Imm; distant
0934	Pink Foot	2	⊙		dark
0934	S/S L	150±20	⊙		
0935	Jaeger sp.	2	N		dark
0936	Pink Foot	2	⊙		
0937	R. Phoebe	4			from H ₂ O E
0940	S/S L	50±10	⊙		



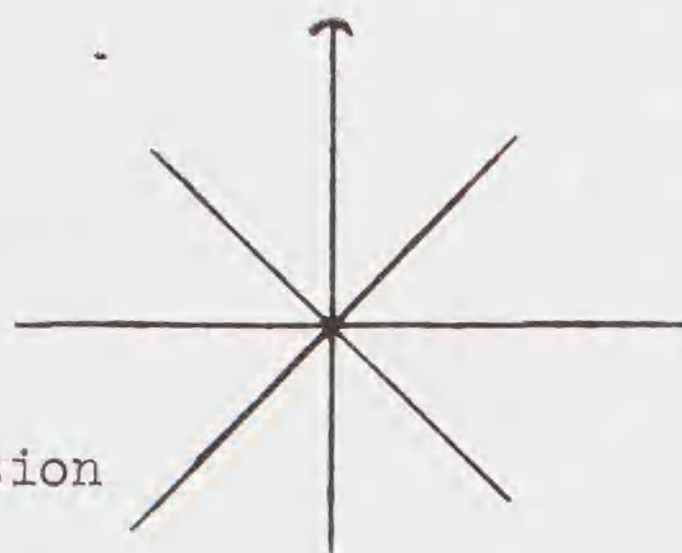
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Date 25 APRIL 1967
Pg.# 3

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
0941	Jaeger sp.	2	E		1 light, 1 dark
0945	Pom. Jaeger	1	E		BEAUTIFUL, PRISTINE LIGHT Plu
0946	H. GULL	2			
0947	GULL. SP.	1	⊙		up from H ₂ O, following
0948	S/Sb	30±5	⊙		1mm.; distant
0950	H GULL	1			
0955	S/Sb	50±10	⊙		Ad.; up from H ₂ O, following
0957	Jaeger	13			3 light plu. Pom., 2 dark plu. Pom., rest? 119-14
1010	Pink foot	1			circling about porpoise (2) (sp.?), some landing on H ₂ O
	Sooty	3			
	Cal. GULL	1			
	W. GULL	1			
1010					Hubb's beaked whale - well viewed ^{30'} off side of ship. "Foundering" at surface on side: Lateral fin twice broke & surface. White "nose" seen and dorsal fin. White on top of head. ca. 15' long. close: light 32-50 119-20
1010	Pom J.	1			
1015	S/SI	6	⊙		
1015	Jaeger. AP	1	⊙		
1020	Sabine G.	3	N		1 w/black head
1022	Pink-foot	1	⊙		
1022	Pom J.	1	⊙		
1024	Sabine G	1	N		black head
1029	S/SI	9			on H ₂ O
1030	Jaeger AP	1	N		dark
1035	Pom J	1			dark on H ₂ O
1036	W. Gull	2	⊙		1 ad, 1 imm
1038	S/SI	2	⊙		
1044	P. creatorpus	19			on H ₂ O 32-52 119-06
	Soot/SI	24			cal sea lion 2
1050	S/SI	4	⊙		
1050	Jaeger. AP	1	⊙		
1054	S/SI	35±5			on H ₂ O
	Pink-foot	20±5			seals (cal sea L. 2) - 32-53 119-05
1055	H.G.	1			imm.
1056	S/SI	8			on H ₂ O
	Pink-foot	4			
1058	W Gull	4			3 imm, 1 ad
1058	S/SI	7			
	Pink foot	1			

Ship
Direction



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

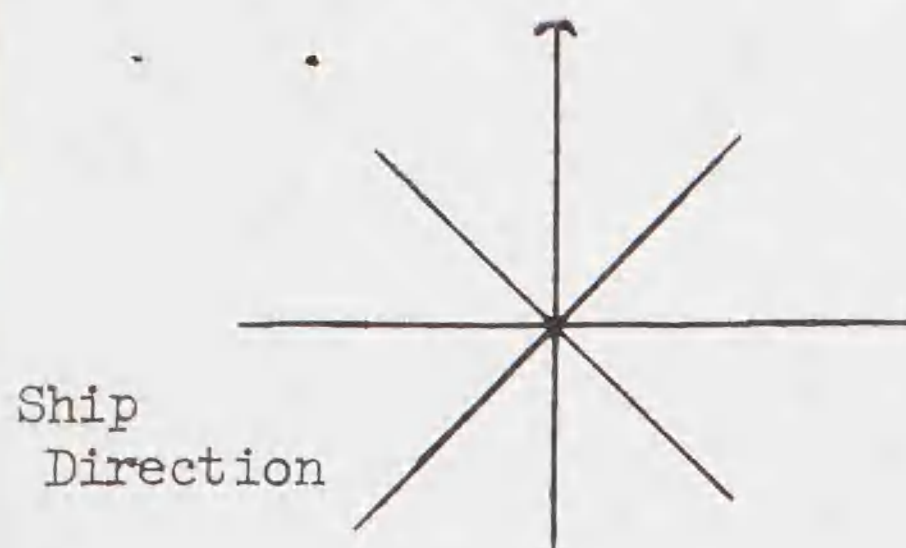
OBSERVERS:

Date 25 Apr
Pg. # 4

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

1100	Pom J	1	N		light
1102	S/SI	3	☉		
1103	S/SI	24			on H ₂ O
1104	S/SL	4			on H ₂ O
	Pink-foot	1			
1113	S/SI	3	☉		
1113	Taeq up	1	↑		
1114	S/SI	50±5	ce		on H ₂ O
	Pom Jaeger	1			forcing itself to dive beneath water - was under for 40-55 seconds while P Jaeger waited above
1117	S/SI	30±5			on H ₂ O
1125	Pink foot	2	ce		on H ₂ O
1126	W. Gull	1	ce		imm.
1127	S/SI	2	ce		on H ₂ O
1127	Pink foot	1	N		
1129	Pom Tue	2	ce		on H ₂ O Light Phase Ad
1130	Pink-foot	3	N		
	S/SI	1	☉		
1133	"	4	NE		
1137	Cormorant	1	ce		on H ₂ O
1205	CAL. GULL	2			Imm.; following
1208	POM. JAEGER	1	E		light ph.
1222	S/SI	1	N		
1235	"	1	S		
1244	"	1	S		
1245	GULL SP.	1	S		
1250	"	1	E		Imm.
1251	"	2			Ado. sitting on H ₂ O
1256	SOOTY/SI	1	N		
1302	CORMORANT	1			flushed from H ₂ O S
1310	Pink-foot	1	☉		
1310	Gull up	1			imm, distant
1311	W. Gull	1			ad on H ₂ O
1315	Pink foot	4			on H ₂ O
	S/SI	3			
1315	Pink-f.	5			on H ₂ O
	S/SI	19			
1318	Pink-foot	9			on H ₂ O
1326	Pelagic Corm.	1			
1327	S/SI	2	☉		
1330	W. Gull	3			imm.



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

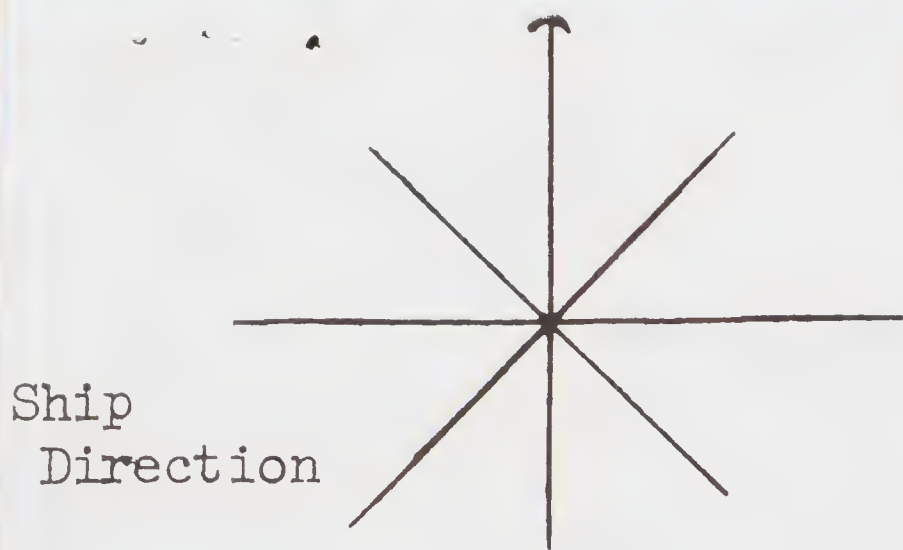
OBSERVERS:

Date 25 Apr '67
Pg. # 5

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

1338	S/S/	1	⊙		
1338	W. Gull	1	⊙		ad.
1343	S/S	1	⊙		
1344	Pink-foot	1	⊙		
1356	S/S/	1	⊙		
1410	Hummingbird	1	NE		Toward Catalina Is.
1417	Loon	1	N		
1424	W. Gull	2	ce		Ad Following
1430	S/S L	3	ce		
1431	"	1	ce		
1435	Pink-foot	1	N		
1442	S/S/	1	ce		
1443	Gull sp	1	ce		
1452	Pink-foot	2	ce		Imm
1455					on H ₂ O Flushed to N
1500	Gull sp	1			Aircraft carrier launched 4 Birds, took in one
1500	Swallow	1	ce		on H ₂ O Ad
1505	BFA	1			circling ship
1508	W. Gull	2			following
1509	S/S/	1	E		ad.
1522	CORMORANT	2	W		
1527	S/S/	2	W		
1528	GULL SP.	1	E		Imm.
1535	Cal. Gull	1			ad. following
1542	GULL SP.	3	W		Imm.; distant
1545	"	1	⊙		
1547	TERN SP.	1	⊙		landed(?) on shore Santa Catalina
1552	H. Gull	1	W		
1610	Gull sp	60			on H ₂ O
	Br. Pelican	1			"
1610	Bonap. Gull	1			ad.
1615	Cal. Gull	130			on H ₂ O, 100 immatures
1615	Gull sp	50 ^{±10}			"
1615	Br. Pelican	4			on H ₂ O
1616	"	8	W		



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Date 25 Apr '67
Pg.# 6

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

1637	Loon sp	2	NW		
1642	Bonap. Gull	23	NW		travelling flock adults
1646	s/s/	1	⊙		
1651	s/s/	1	⊙		white underwing
1651	W. Gull	4	⊙		imm
1652	Cal Gull	1			ad on H ₂ O
1658	W Gull	2	⊙		Ad
1704	Cal Gull	1	⊙		Ad - following
1710	Gull sp	1	⊙		Ad
1720					close observation

Date 18 APR 1967Ship SHEARWATER (TAG 177)Cruise No. 177-67-06Organization P.O.B.S.P.

Recorder _____

Sunrise: Time _____

Position: Lat. _____, Long. _____

Sunset: Time 1828Position: Lat. 33°58', Long. 118°57'

Miles travelled from 0000 hours to sunrise = _____

*Miles travelled from sunrise to sunset = _____

*Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
-------------	-------------	----------	-----------

1. Departure Los Angeles. 1480 hrs.

33°42' N

2. Hourly Fixes By Land Bearing.

118°15' W

3.

4.

3°-7'

5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200						
0300						
0400						
0500						
0600						
0700						
0800						
0900						
1000						
1100						
1200						
1300						
1400	33°42' N	118°15' W				
1500	33°43' N	118°18' W				
1600	33°44' N	118-28W	190	14	190	3
1700	33°48' N	118-40W	200	15	190	3
1800	33°54' N	118-50W	240	15	240	3
1900	34° 57' N	118-57W	240	15	240	4
2000	34° 00' N	119-09W	240	5	240	2
2100	34-08N	119-21W	270	10	270	3
2200	34-10N	119-32W	270	10	270	3
2300	34-13.5N	119-45W	270	10	270	3
2400	34-16	119-54.5W	270	10	270	3

Date 19 APR - 67Ship FAIRWATER (T-AG 177)Cruise No. 177-67-06Organization P.O.B.S.P.

Recorder _____

Sunrise: Time 0529Position: Lat. 34° 33' N, Long. 120° 55' WSunset: Time 1848Position: Lat. 34° 58' N, Long. 123° 11' WMiles travelled from 0000 hours to sunrise = 52Miles travelled from sunrise to sunset = 119Miles travelled from sunset to 2400 hours = 55 miles

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
--	-------------	-------------	----------	-----------

1. L.A.N. & LORAN & SUN
2. 1400 LORAN & SUN
3. 1900 STAR FIX
4. Hourly LORAN LINE
- 5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100	34-19 N	120-10 W	240	12	290	4
0200	34-22 N	120-20 W	240	15	290	4
0300	34-24 N	120-30 W	290	15	290	4
0400	34-27 N	120-40 W	290	15	290	4
0500	34-31 N	120-49 W	230	12	250	4
0600	34-35 N	121-00 W	240	12	270	4
0700	34-39 N	121-10 W	205	14	260	4
0800	34-42 N	121-17 W	205	14	210	3
0900	34-47 N	121-28 W	270	10	270	3
1000	34-51 N	121-38 W	270	10	270	3
1100	34-54 N	121-46 W	270	10	270	4
1200	34-55 N	121-57 W	270	10	270	4
1300	34-59 N	122-10 W	275	12	275	4
1400	34-59 N	122-21 W	275	10	275	4
1500	34-59 N	122-42 W	275	12	300	12 (50)
1600	34-52 N	122-32 W	280	280 10	300	12 (50)
1700	34-51 N	123-05 W	300	10	315	4
1800	34-53 N	123-04 W	305	7	315	4
1900	34-55 N	123-15 W	300	8	315	3
2000	34-55 N	123-24 W	285	8	315	2
2100	34-58 N	123-39 W	LT. AIRS		CALM	
2200	34-58 N	123-51 W	LT. AIRS		CALM	
2300	34-58 N	124-04 W	LT. AIRS		CALM	
2400	34-58 N	124-16 W	LT. AIRS		CALM	

10 Feet WNW 4/5 knots

1240 - ARRIVED
PT. ASH - Course
270°(T)

8 FT SWELL - 300

Date 20 April 1967Ship Shearwater (TA6 177)Cruise No. 177-67-06Organization P.O.B.S.P.

Recorder _____

Sunrise: Time 0548Position: Lat. 35°02'N, Long. 125°22'WSunset: Time 1858Position: Lat. 34°12'N, Long. 125°48'WMiles travelled from 0000 hours to sunrise = 55Miles travelled from sunrise to sunset = 128Miles travelled from sunset to 2400 hours = 55

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0530	LORAN + STAR	35°02'N	125°19'W
2.	0700	R. FIX	35°02'N	125°35'W
3.	NOON FIX	LORAN + SUN LINE, RETARD LAM.		
4.				
5.				

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100	35-00 N	124-26 W	260	5	260	CALM
0200	35-00 N	124-37 W	LT AIRS	—	—	"
0300	35-00 N	124-50 W	280	5	280	"
0400	35° 01' N	125° 03' W	290	7	280	3
0500	35° 02' N	125° 15' W	290	7	280	3
0600	35° 02' N	125° 26' W	290	7	280	3
0700	35° 02' N	125° 35' W	LT. AIRS		280	1
0800	35° 01' N	125° 50' W	LT. AIRS		280	1
0900	35-00 N	126-03 W	295	12	295	3
1000	35-00 N	126-24 W	295	12	295	3
1100	34-49 N	126-21 W	300	18	295	5
1200	34-39 N	126-21 W	300	20	295	5
1300	34-35 N	126-13 W	290	17	290	5
1400	34-30 N	126-23 W	280	15	280	5
1500	34-20 N	126-28 W	280	15	280	5
1600	34-13 N	126-26 W	280	15	280	5
1700	34-12 N	126-10 W	270	12	280	4
1800	34-12 N	125-58 W	270	10	280	3
1900	34-12 N	125-47 W	260	15	340	2
2000	34-11 N	125-35 W	260	15	340	2
2100	34-10 N	125-20 W	280	16	280	4
2200	34-10 N	125-08 W	280	16	280	6
2300	34-10 N	124-52 W	280	16	280	6
2400	34-10 N	124-41 W	280	16	280	6

WNWLY SWELL
8 FT.

1004 c/c 192

1530 c/c 090

Date 21 APR 67Ship SHEARWATER (TAG 177)Cruise No. 177-67-06

Organization _____

Recorder _____

Sunrise: Time 0537Position: Lat. 34° 13' N Long. 123° 21' WSunset: Time 1839Position: Lat. 33° 38' N Long. 121° 21' WMiles travelled from 0000 hours to sunrise = 53Miles travelled from sunrise to sunset = 139Miles travelled from sunset to 2400 hours = 55

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0500	CESTIAL		
2.	Hourly sun lines with Loran			
3.	LAN REDUCED WITH LORAN & SUNLINE FOR Noon			
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100	34-08N	124-28W	275	30	275	6
0200	34-08N	124-10W	265	15	265	5
0300	34-10N	123-58W	280	15	265	5
0400	34° 13' N	123° 42' W	280	14	265	3
0500	34° 13' N	123° 39' W	280	14	265	3
0600	34 13 N	123° 16' W	280	14	265	3
0700	34 12 N	123 03 W	280	14	285	4
0800	34 12 N	122° 51' W	265	15	285	4
0900	34 12 W	122 38 W	275	14	275	4
1000	34 12 W	122 25 W	275	14	275	4
1100	34 11 N	122-15 W	275	14	275	5
1200	34-10 N	122-04 W	275	14	275	5
1300	34-11 N	121-48 W	270	12	270	5
1400	34-12 N	121-31 W	265	12	265	5
1500	34-10 N	121-20 W	250	12	250	6
1600	34-01 N	121-20 W	245	12	245	6
1700	33-49 N	121-21 W	210	12	240	4
1800	33° 40' N	121-22 W	270	12	240	3
1900	33° 31' N	121-20 W	260	15	240	3
2000	33° 20' N	121° 20' W	210	10	240	3
2100	33-22 N	121-40 W	270	16	270	4
2200	33-20 N	121-52 W	270	16	270	4
2300	33-20 N	122-03 W	270	16	270	5
2400	33-20 N	122-14 W	270	16	270	5

0100	34-08N	124-28W	275	30	275	6
0200	34-08N	124-10W	265	15	265	5
0300	34-10N	123-58W	280	15	265	5
0400	34° 13' N	123° 42' W	280	14	265	3
0500	34° 13' N	123° 39' W	280	14	265	3
0600	34 13 N	123° 16' W	280	14	265	3
0700	34 12 N	123 03 W	280	14	285	4
0800	34 12 N	122° 51' W	265	15	285	4
0900	34 12 W	122 38 W	275	14	275	4
1000	34 12 W	122 25 W	275	14	275	4
1100	34 11 N	122-15 W	275	14	275	5
1200	34-10 N	122-04 W	275	14	275	5
1300	34-11 N	121-48 W	270	12	270	5
1400	34-12 N	121-31 W	265	12	265	5
1500	34-10 N	121-20 W	250	12	250	6
1600	34-01 N	121-20 W	245	12	245	6
1700	33-49 N	121-21 W	210	12	240	4
1800	33° 40' N	121-22 W	270	12	240	3
1900	33° 31' N	121-20 W	260	15	240	3
2000	33° 20' N	121° 20' W	210	10	240	3
2100	33-22 N	121-40 W	270	16	270	4
2200	33-20 N	121-52 W	270	16	270	4
2300	33-20 N	122-03 W	270	16	270	5
2400	33-20 N	122-14 W	270	16	270	5

ck to 180

ck to 270

Date 22 APR 67Ship SEA SWATH (T-NGM)Cruise No. 177-67-06

Organization _____

Recorder _____

Sunrise: Time 0536Position: Lat. 33° 25' N, Long. 123° 45' WSunset: Time 1851Position: Lat. 33° 22' N, Long. 124° 43'Miles travelled from 0000 hours to sunrise = 44Miles travelled from sunrise to sunset = 99Miles travelled from sunset to 2400 hours = 45

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
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1. HOURLY FIX DURING NIGHT, LORAN RATES 2H1 & 2H22. 0500 CELESTIAL 33° 25' N 122° 58' W3. 1207 LORAN - 1200 SUNLINE4. 1533 2H1 & 2H2 SUNLINE - 1530 SUNLINE - 2H2 LORAN5. 1900 CELESTIAL LORAN 33° 22' N 123° 55' W

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
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0100	33-19 N	122-23 W	280	12	280	* 7
0200	33-19 N	122-33 W	280	16	280	* 8
0300	33-18 N	122-42 W	280	15	280	* 8
0400	33-17 N	122-50 W	280	15	280	* 8
0500	33-25 N	123-05 W	300	15	290	5
0600	33-25 N	123-07 W	330	15	290	5
0700	33-25 N	123-15 W	330	15	290	5
0800	33-24 N	123-22 W	320	15	300	5
0900	33-23	123-30 W	300	14	300	6
1000	33-21	123-37 W	300	14	300	6
1100	33-21	123-22 W	300	14	300	6
1200	33-20 N	123-19 W	270	15	270	5
1300	33-20 N	123-00 W	280	10	280	5
1400	33-20 N	123-05 W	300	10	280	5
1500	33-20 N	123-16 W	270	5	270	5
1600	33-20 N	123-26 W	LT AIRS		KIPHOES	
1700	33-20	123-37 W	270	10	270	3
1800	33-20	123-44 W	220	10	260	2
1900	33-22	123-55 W	215	10	240	3
2000	33-22	124-05 W	205	14	220	2
2100	33-21	124-17 W	225	14	215	4
2200	33-21	124-28 W	225	14	215	4
2300	33-21	124-38 W	215	18	215	5
2400	33-21	124-47 W	215	20	215	5

* COMBINED
SEA & SWELL10-12' NW by
SEWELL0941-1330
ON OBSERVED
EXTENDING GLE
REMARKS
REQUIRE GLEP
ASSIGNED 1330

Date 25 APRIL 1967 Ship LION & SNEARAWAT (T-116177) Cruise No. 177-67-01

Organization _____ Recorder _____

Sunrise: Time 0530 Position: Lat. 32°38'N, Long. 120°03'W

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = 47

Miles travelled from sunrise to sunset = 107 to close of obs.

Miles travelled from sunset to 2400 hours = _____

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0500	CELESTIAL	32°37'N	120°07'W
2.				
3.				
4.				
5.				

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100	32°31'N	120°50'W	315	22	325	10
0200	32°32'N	120°44'W	315	25	325	10
0300	32°33'N	120°34'W	315	24	325	10
0400	32°34'N	120°18'W	315	25	325	10
0500	32°37'N	120°07'W	315	25	325	10
0600	32°41'N	119°57'W	315	25	325	10
0700	32°47'N	119°40'W	315	25	325	10
0800	32°51'N	119°34'W	315	25	325	10
0900	32°45'N	119°23'W	315	25	325	10
1000	32°49'N	119°14'W	315	22	325	10
1100	32°53'N	119°04'W	315	22	325	10
1200	32°56'N	118°55'W	315	22	325	10
1300	32°58'N	118°51'W	315	20	325	10
1400	33°01'N	118°42'W	310	18	300	8
1500	33°17'N	118°25'W	300	16	300	6
1600	33°12'N	118°18'W	295	8	295	1
1700	33°26'N	118°15'W	300	10	290	1
1800	33°32'N	118°14'W	300	10	290	1
1900	ARRIVAL	LONG BEACH N SEA BAY				
2000						
2100						
2200						
2300						
2400						

- See Catalina
+ Channel Isls.

1412

1372

30

1342

Date 24 Dec 66 Ship Seawave (FACIM) Cruise No. 1776706

Organization POBEP Recorder Ship's bridge

Sunrise: Time 0529 Position: Lat. 32°30'N, Long. 124°07'W

Sunset: Time 1844 Position: Lat. 32°26'N, Long. 121°53'W

Miles travelled from 0000 hours to sunrise = 50

Miles travelled from sunrise to sunset = 114

Miles travelled from sunset to 2400 hours = 45

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
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1.	0729	LORAN C	32°25'N	123°53'W
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2.	NOON, RETARD 2ND 1210, LAT JURY LONG 3ND			
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3.	1909	COCOA	32°26'N	121°50'W
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4.				
----	--	--	--	--

5.				
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* departed just at 2400 in order to make a long haul for engine repair

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
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0100	32-26 N	123-06 W	330	15	300	6
0200	32-25 N	124-43 W	340	17	300	6
0300	32-28 N	124-35 W	330	17	300	6
0400	32-28 N	124-23 W	330	17	300	6
0500	32-28 N	124-11 W	330	14	330	3
0600	32-28 N	124-01 W	330	14	330	3
0700	32-28 N	123-53 W	330	16	330	4
0800	32-28 N	123-42 W	330	16	330	4
0900	32-27 N	123-22 W	330	17	330	5
1000	32-27 N	123-18 W	330	17	330	6
1100	32-27 N	123-10 W	330	17	330	6
1200	32-27 N	123-03 W	330	15	300	6
1300	32-26 N	122-52 W	330	17	300	6
1400	32-27 N	122-43 W	350	17	300	6
1500	32-27 N	122-34 W	345	15	300	6
1600	32-27 N	122-31 W	345	15	300	6
1700	32-27 N	122-13 W	345	15	300	6
1800	32-27 N	122-03 W	340	16	335	4
1900	32-26 N	121-50 W	340	16	335	6
2000	32-26 N	121-39 W	340	16	335	6
2100	32-27 N	121-31 W	340	16	340	6
2200	32-27 N	121-21 W	340	16	340	6
2300	32-28 N	121-11 W	340	16	340	6
2400	32-28 N	121-00 W	340	16	340	6

DEPARTED CALD TO SEEK REPAIR PORT.

Date 4/23/67 Ship Shearwater (TAG 177) Cruise No. 177-67-06

Organization P.O.B.S.P. Recorder ship's bridge

Sunrise: Time 0544 Position: Lat. 33°24'N Long. 125°30'W

Sunset: Time 1859 Position: Lat. 32°27'N Long. 126°00'W

Miles travelled from 0000 hours to sunrise = 84

Miles travelled from sunrise to sunset = 107

Miles travelled from sunset to 2400 hours = 42

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0530	CELESTIAL LORAN	33°24'N	125°28'W
2.				
3.	1900	CELESTIAL LORAN	32°27'N	125°59'W
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100	33°20'N	124-54W	270	15	270	5
0200	33°20'N	125-02W	270	17	270	5
0300	33-20N	125-10W	270	20	270	5
0400	33°23'N	125°15'W	270	17	270	5
0500	33°24'N	125-24W	250	17	270	5
0600	33°24'N	125-34W	235	18	270	5
0700	33°25'N	125-41W	250	12	270	5
0800	33°23'N	125°51'W	270	12	260	5
0900	33-22N	126-01W	295	18	290	6
1000	33-21N	126-11W	295	18	290	6
1100	33-20N	126-17W	295	25	290	6
1200	33°-10'N	126-25W	300	15	300	8
1300	33°-01'N	126-23W	300	17	300	8
1400	32-57N	126-22W	300	15	300	8
1500	32-48N	126-23W	300	15	300	8
1600	32-40N	126-25W	300	15	300	8
1700	32-31N	126-30W	315	15	315	5
1800	32-29N	126-11W	315	14	300	5
1900	32-27N	125-59W	315	14	300	5
2000	32°27'N	125-50W	320	15	300	3
2100	32-27	125-37W	330	14	330	4
2200	32-27	125-26W	330	14	330	4
2300	32-27	125-15W	330	14	330	4
2400	32-27	125-05W	330	14	330	4

1130C/CTO
1800

PRELIMINARY REPORT

EASTERN AREA CRUISE 7
18-25 April 1967

including
EASTERN GRID SURVEY 6

Prepared by
Brian Harrington

This report is a summary of observations and collections made by P.O.B.S.P. personnel in the eastern Pacific Ocean from 18-25 April, 1967. Participating personnel included Brian Harrington (biologist-in-charge), Richard Heiden, and James Lewis. Superior cooperation was received from the officers and crew of the U.S.N.S. SHEARWATER(T-AG 177). The grid track was followed as accurately as circumstances would allow, but due to mechanical failures of the ship, was not completed. On 22 April deviations from the nominal cruise track were made between points E and F in order to make temporary engine repairs. Instead of continuing west, an east course was taken from 0940 until 1330; at 1330 the course was once again reversed. Thus, a twenty mile portion of the track for the day was traveled three times. Observations over this transect will be discussed in the grid section of this report. Because of further problems with the main engine, none of the grid track between points H and O was surveyed. Instead a direct course to Long Beach was taken from point H..

All positions on this cruise are considered accurate within five miles. Combined LORAN, sunlines and celestial fixes were taken hourly throughout the grid during diurnal hours; at night only LORAN was used.

This report is divided into two sections. The first deals with the grid portion of the cruise while the second covers the non-grid survey.

EASTERN PACIFIC GRID SURVEY
NUMBER 6

The eastern grid survey was conducted from 1240 hours 19 April through 2400 hours 24 April, 1967. Only about two thirds of the

nominal grid track was surveyed. A total of 72.2 hours of diurnal observation was conducted over 649 linear miles. A summary of observations may be found in table 1. An additional 12 hours of nocturnal observation were conducted and are summarized on table 5.

Weather data during the survey were recorded on appropriate forms. In general, winds and seas were moderate; a high pressure center to the north of the grid, and a low pressure center along the California coast influenced the weather throughout the survey. Sea state was not suitable for operation of the skiff, thus reducing collecting capabilities.

Twenty-seven bathythermograph casts were made in the grid. The slides will be sent to Scripps's Institution for analysis.

FLOCKING

As on previous cruises, flocking was not recorded in the grid except for resting groups of Storm Petrels and Phalaropes. Flocking of these species will be discussed in the species accounts.

For purposes of discussion this report is divided into two sections. The first deals with the grid survey while the second summarizes the non-grid portion of the cruise.

GRID SPECIES ACCOUNTS

Black-footed Albatross (Diomedea nigripes) 35 + 4 nocturnal

Density in both the north and central sections was lower than that recorded on the last survey. East-west differences were not as marked as in early April, but were still evident.

An attempt was made to keep track of unusually marked individuals to determine how long they followed the ship. On 21 April two birds were followed closely; one followed about six hours and another for at least thirteen hours. On the 22nd another bird was recorded for more than ten hours.

The numbers of birds with dark upper tail coverts outnumbered those with white or mostly white by 5:1.

Laysan Albatross (Diomedea immutabilis) 1

One bird with an unusually pink bill was recorded in the eastern half of the central section.

Fulmar (Fulmarus glacialis) 0

This is the first eastern grid survey to date on which no Fulmar were seen.

Small Pterodroma (Not positively identified) 50

Judging by the field marks of the small Pterodroma which were well observed, it is felt that virtually all were Pterodroma cookii. Sightings were most common in the western half of the grid, especially on the north leg. Why an equal number was not seen to the south at equivalent longitudes is puzzling. A noticeable decline was recorded between points B and C; thereafter sightings were relatively scarce.

Most of those birds for which direction of travel was noted

were moving rapidly in a northerly direction. A few were seen sitting on the water, usually in the company of a few storm petrels.

Leach's Storm Petrel (<u>Oceanodroma leucorhoa</u>)	114	+ 2	nocturnal
Storm Petrel sp. (unidentified)	12	+ 2	nocturnal

Probably all of the storm petrels seen on this survey were Leach's, but as similar types could easily be overlooked, they were recorded on the daily log sheets only as white-rumped storm petrels. The density distribution has changed since last cruise, but this behavior has been noted without explanation since January. The general trend of increase in the north section would seem to be indicative of a migratory movement, but no other data were collected which substantiates this. Direction of travel did not follow any obvious pattern, and the variation of local densities would not seem likely if a loose migration was under way.

Red-tailed Tropicbird (<u>Phaethon rubricauda</u>)	2
--	---

Both sightings were in the north section; neither bird was attracted to the ship, and in fact both seemed to avoid it.

Glaucous-winged Gull (<u>Larus glaucescens</u>)	0
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This is the first grid survey to date on which no Glaucous-wings were seen. The pattern of decline has closely followed that of the Herring Gull.

Herring Gull (<u>Larus argentatus</u>)	4
--	---

All sightings were of adults in the north section. The continuing decline of the grid population suggests that breeders are returning to the nesting islands.

Western Gull (Larus argentatus)

4

These were the first sightings for this species in the grid. All were adult birds, and two females collected had enlarged gonads. Although the change of status within the grid does not seem large enough to be significant, it does seem possible that they were migrants based on data collected in the non-grid areas.

Short-billed Gull (Larus canus)

1

The collection of this species constitutes the first grid record. The specimen was a subadult with light fat, and was in the northwest portion of the grid.

Sabine's Gull (Xema sabini)

2

Two were seen in the northeast portion of the grid. All the sightings to date would suggest that along this portion of the coast this species is most apt to occur between 50 and 150 miles of the shoreline.

Pomarine Jaeger	(<u>Stercorarius pomarinus</u>)	1
Long-tailed Jaeger	(<u>S. longicaudus</u>)	1
Jaeger sp.	(Unidentified)	2

All of the grid jaeger sightings were in the eastern half of the north section where they have been frequently noted since January.

Red Phalarope (Phalaropus fulicarius) 927 + 7 nocturnal

The densities of this species have been high and irregular over the last three cruises. During this survey unprecedented numbers were recorded, especially in the central portion of the grid. Their distribution seems to be very local, as was well demonstrated on 22 April. On this day a 20 mile portion of the cruise track was surveyed three times (see report introduction.) During these three transects virtually no Red Phalarope were seen. Yet just to the west (within 20 miles) hundreds were seen along a 20 mile line.

This instance, along with data from former surveys, suggests that the Red Phalarope abundance is quite local, but variable from one cruise to the next.

As weather was not suitable for collecting from the skiff, no specimens were taken in the grid. It was noted that about 20% of the birds appeared to be in complete nuptial plumage. The remaining were in winter or intermediate stages.

Black-bellied Plover (Squatarola squatarola) 1

A single bird thought to be this species was seen in the northwest portion of the grid.

Xantus Murrelet (Endomychura hypoleuca) 2

Two birds were seen together in the eastern half of the central section. One male which was collected had small testes, moderate fat, and was in heavy body molt.

GRID MAMMALS

The numbers of mammals sighted in the survey area declined considerably from previous cruises. This, as emphasized in earlier reports, may have been due to the uncalm seas which were present throughout this survey. However, as no method of weighting is used to balance figures for sea state, all that can be said is that there may or may not have been more mammals than were sighted.

North Section

Otarids in the north section were represented by one unidentified sea lion and ten unidentified seals.

Cetaceans were scarce. Four Killer Whales and two Dall

Porpoise were all that were seen. The Dall Porpoise had not been recorded in the grid before this sighting.

Central Section

No seals were seen. Cetaceans included four Sperm Whales in the western half; in the eastern half one Killer Whale, five Baird's Dolphin and two unidentified dolphin were seen.

NON-GRID SURVEY

The non-grid phase of this cruise includes parts of three days of observations. Two periods were between Long Beach and point "A" of the grid, while one day was spent between point "H" and Long Beach. Both tracks were essentially the same as on previous trips.

On previous Eastern Area Cruises the non-grid portion has been analysed from the standpoint of the two cruise tracks. In this survey report an alternate treatment seems more meaningful. Instead of dividing by cruise track, this phase of the report is divided into those observations to seaward of the Channel Islands and those observations inside of the islands (see map 2). It is felt that this treatment is more meaningful when compared to the grid observations.

Flocking in the non-grid areas of this survey was a significant activity, especially in areas near Cortez and Turner Banks off San Clemente Island. This behavior will be discussed in the species accounts.

NON-GRID SPECIES ACCOUNTS

Loons

As none of the loons seen were well observed, no specific identifications were possible. All sightings were of migrants traveling north inside the Channel Islands.

Albatross

All but one of the fifteen black-footed Albatross seen were outside the islands. Two Laysan Albatross were seen near Cortez Banks.

Shearwaters/Petrels

The only Fulmar sighting for the trip was a single bird near

the grid on the north track.

Sooty Shearwaters were present inside and outside of the Channel Islands, but were most abundant in the areas near the banks on the south track. Frequently mixed with the resting flocks of Sooty Shearwater were Pink-footed Shearwaters. The ratio of Sooties to Pink-foots was 9:1 inside the channel islands and 97:1 on the outside. As was noted last month, most of the shearwaters were in flocks sitting on the water; frequently these flocks were around one or two feeding seals.

Pelicans, Cormorants, and Boobies

Brown Pelicans were seen inside the Channel Islands, especially near Catalina Island. Most were with groups of gulls sitting on the water.

A single Blue-footed Booby was seen near Cortez Banks.

Cormorants were seen only in small numbers, and all were inside the Channel Islands. Five were identified as Pelagic Cormorants.

Black Brant

A single migrating flock of 18 was seen inside the Channel Islands.

Shorebirds

Non-grid shorebirds were seen almost entirely inside the islands. Northern Phalarope, a species new to the Eastern Area Cruises, were very abundant on the north leg. Most were in small flocks of less than 20 birds, but one flock of an estimated 1500 was well observed sitting on the water.

It is interesting to note that no Red Phalarope^{were seen} inside the islands, and that no Northerns were seen far to sea.

Red Phalarope were seen outside the islands on the south track.

Jaegers and Skua

Two Skuas were seen on the north track; one was inside the islands, and one on the outside.

Pomarine Jaegers were abundant outside the Channel Islands on the south leg. Sixteen were identified, and most of the unidentified jaegers(17) were probably also Pomarines. On the north leg two unidentified Jaegers were seen outside the islands.

A single Long-tailed Jaeger was identified outside the islands on the south leg.

Gulls

The status inside and outside of the islands has changed considerably over the past month. On the inside of the islands 129 unidentified gulls were seen, only six of which were on the north leg. During earlier surveys hundreds of gulls were seen in the same areas.

Western Gulls were observed most commonly inside the Channel Islands. But when compared to other species of gulls they were proportionately more abundant on the outside. Also, in a proportionate sense, they were more abundant overall than they have been on previous cruises. Both adults and immatures were noted.

One Herring Gull was seen inside the islands; the remaining four were on the outside. The decrease of numbers correlates to the drop noted in the grid.

California gulls were the most abundant gull seen on the non-grid survey. A group of 130 was seen just off of Catalina Island; an estimated 90% of these were immature birds. On the north leg only one California Gull was seen.

One Ring-billed Gull was seen inside the islands on the north leg.

All sightings of Bonaparte's Gulls were inside the Channel Islands. One flock of 23 appeared to be migrating.

Sabine's Gulls were seen only outside the Channel Islands. On the north leg a single bird was seen, while on the south leg six were recorded.

Terns

Three unidentified terns were seen on the south track. Two were outside the islands, and one was on the inside. In Long Beach Harbor both Forster's and Least Terns were seen.

Alcids

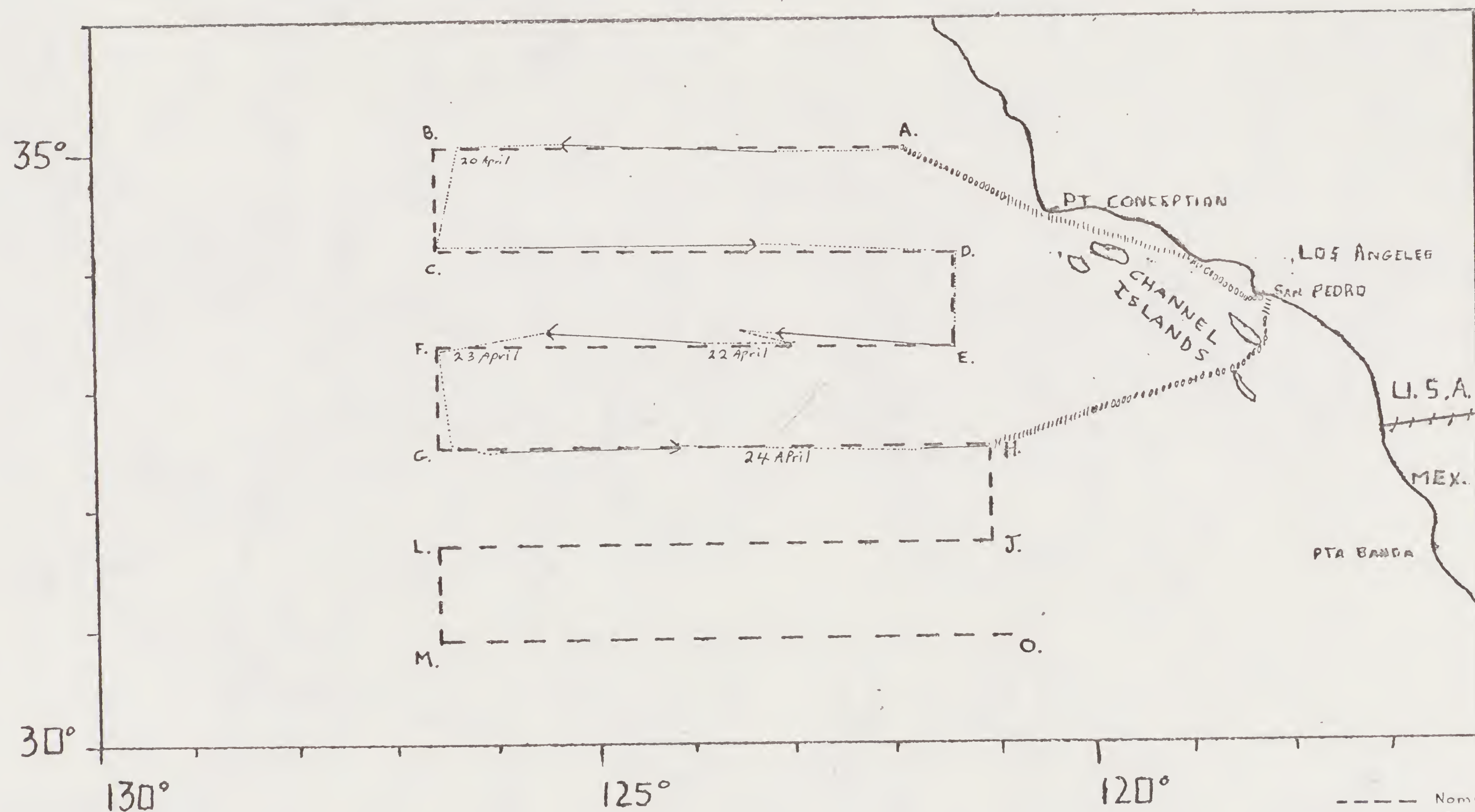
The only non-grid alcids were two Rhinoceros Auklets on the south leg outside of the islands.

NON-GRID MAMMALS

No marine mammals were seen inside the Channel Islands, and none were seen on the north portion of the non-grid cruise. On the south portion most sightings were of seals(10), four of which were thought to be California Sea Lions. In addition, five Dall Porpoise, two unidentified porpoise, a single Sperm Whale, and a Hubb's Beaked Whale were seen. The latter was well viewed at thirty to fifty feet from the ship. A description and notes were included on the log sheet.

No other marine mammals were seen on the non-grid cruise.

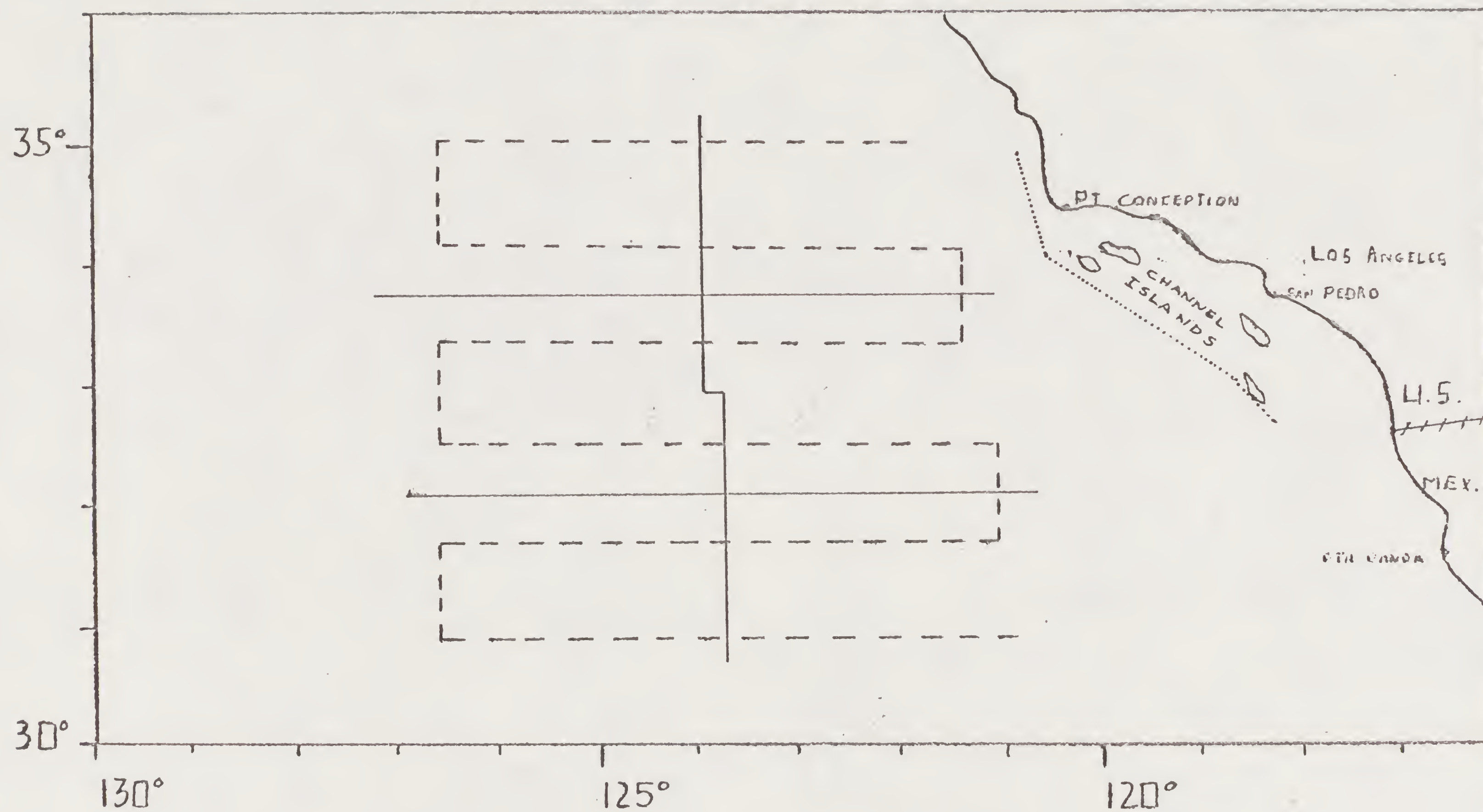
EASTERN PACIFIC OCEAN



MAP 1: EASTERN GRID NOMINAL CRUISE PLAN AND EASTERN AREA CRUISE NO: 7 CRUISE TRACK.

- Nominal Grid Plan
- Diurnal Grid Track
- Nocturnal Grid Track
- ||||| Nocturnal Non-Grid Track
- oooooo Diurnal Non-grid Track.

EASTERN PACIFIC OCEAN



MAP 2: GRID PATTERN SHOWING EAST-WEST AND NORTH-SOUTH DIVISIONS USED IN TABLES 2 and 3. ALSO SHOWN IS THE DIVISION USED IN TABLE 7.

Table 1: Diurnal Grid Summary, 19-24 April 1967, Eastern Grid Cruise 6

SPECIES	Number	% of Total Birds	No./lin. mile	No./sq. mi.	No. collected	No. Sera Samples
Black-footed Albatross	35	3.0	.054	.014		
Laysan Albatross	1	.1	.002	.001		
Sooty Shearwater	18	1.5	.028	.014		
Leach's Storm Petrel	114	9.6	.176	.176	1	1
Red-tailed Tropicbird	2	.2	.003	.002		
Herring Gull	4	.3	.006	.003		
Western Gull	4	.3	.006	.003	2	2
Short-billed Gull	1	.1	.002	.001	1	1
Sabine's Gull	2	.2	.003	.002		
Pomarine Jaeger	1	.1	.002	.001		
Long-tailed Jaeger	1	.1	.002	.001		
Red Phalarope	927	78.2	1.428	2.856		
Black-bellied Plover	1	.1	.002	.002		
Xantus Murrelet	2	.2	.003	.006	1	1
Bird sp.	4	.3	.003	.003		
Small Pterodroma	50	4.2	.039	.039		
Storm Petrel sp.	12	1.0	.018	.018		
Shearwater/Petrel	5	.4	.004	.004		
Gull sp.	1	.1	.001	.001		
Jaeger sp.	2	.2	.002	.002		
TOTALS	1186	100.1			5	5
Total miles	647					

Table 2: Sectional Breakdown of Eastern Pacific Grid Bird Populations, 19-24 April, 1967

	NORTH SECTION				CENTRAL SECTION				SOUTH SECTION			
	No.	% of Grid Species Total	% of total birds in North Section	Birds/Sq. mi.	No.	%	%	B./sq. mi.	No.	%	%	B./sq. mi.
Black-foot Albatross*	26	67	5.9	.020	13	33	1.7	.010	NOT SURVEYED			
Laysan Albatross					1	100	.1	.001				
Sooty Shearwater	16	89	3.6	.025	2	11	.3	.003				
Leach's Storm Petrel	77	63	17.3	.236	37	37	4.7	.115				
Red-tailed Tropicbird	2	100	.5	.003								
Herring Gull	4	100	.9	.006								
Western Gull	4	100	.9	.006								
Sabine Gull	2	100	.5	.003								
Short-billed Gull	1	100	.2	.002								
Pomarine Jaeger	1	100	.2	.002								
Long-tailed Jaeger	1	100	.2	.002								
Red Phalarope	255	28	57.3	1.560	672	72	90.0	4.175				
Black-bellied Plover	1	100	.2	.003								
Xantus Murrelet					2	100	.3	.012				
Bird sp.					4	100	.5	.006				
Small Pterodroma	37	74	8.3	.057	13	26	1.7	.020				
Storm Petrel sp.	10	83	2.2	.031	2	17	.3	.006				
Shearwater/Petrel	5	100	1.1	.008								
Gull sp.	1	100	.2	.002								
Jaeger sp.	2	100	.5	.003								
TOTALS	445		100.0	1.967	746		99.6	4.348				
Total miles		327				322						

* The total for the two sections may not agree with the grid total due to an allowance for birds which followed from one section to another.

Table 3: East-west Breakdown of Eastern Grid Bird Populations, 19-24 April 1967

Species	EASTERN HALF				WESTERN HALF			
	No.	% of Grid Species Total	% of Total birds in East Section	Birds/Sq. mile	No.	%	%	B./Sq. mi.
Black-footed Albatross	26	74	2.8	.016	9	26	2.9	.010
Laysan Albatross	1	100	.1	.001				
Sooty Shearwater	13	72	1.5	.016				
Leach's Storm Petrel	89	82	10.0	.215	25	18	8.0	.106
Red-tailed Tropicbird	1	50	.1	.001	1	50	.3	.004
Herring Gull	2	50	.2	.003	2	50	.6	.004
Western Gull	4	100	.5	.005				
Short-billed Gull					1	100	.3	.004
Sabine's Gull	2	100	.2	.003				
Pomarine Jaeger	1	100	.1	.001				
Long-tailed Jaeger	1	100	.1	.001				
Red Phalarope	698	75	80.0	3.374	229	25	73.2	1.950
Black-bellied Plover					1	100	.3	.004
Xantus Murrelet	2	100	.2	.010				
Bird sp.	3	75	.3	.004	1	25	.3	.004
Small Pterodroma	16	32	1.8	.020	34	68	10.1	.072
Storm Petrel sp.	11	92	1.3	.027	1	8	.3	.004
Shearwater/Petrel	2	40	.2	.003	3	60	1.0	.007
Gull sp.					1	100	.3	.004
Jaeger sp.	2	100	.2	.003				
TOTALS	874		99.6		313		99.2	
Total miles		414				235		

* The total for the two sections may not agree with the grid total due to an allowance for birds w

Table 4: Cruise Data Summary, Eastern Area Cruise 7; 18-25 April, 1967

Date	18	19	20	21	22	23	24	25
No. hours Diurnal Watch	3.7	12.8	13.2	13.0	13.2	13.3	13.3	12.0
Birds/lin. mile	56.0	3.6	2.26	.79	6.54	.22	.57	18.9
No. Birds	2184	430	289	109	637	24	66	2026

Table 5: Summary of Nocturnal Observations, Eastern grid Cruise 6

Date	19	20	21	22	23	24
Hours of Observation	2	2	2	2	2	2
bird	1				1	1
Black-foot Albatross	1		1		1	
Storm Petrel	1		1			
Leach's	1	1				
Phalarope	3	1				3
Shear/Petrel	1					
Albatross						1
Totals	8	2	2	0	2	5

Table 6: Diurnal Density of Species Groups in the Eastern Grid
19-24 April, 1967

<u>Species Group</u>	<u>No. Birds</u>	<u>Birds/lin. mile</u>	<u>Birds/sq. mile</u>	<u>Percent of Total Birds</u>
Albatross	36	.056	.014	3.0
Shearwater/Petrels	73	.113	.057	6.2
Storm Petrels	126	.195	.195	10.6
Tropicbirds	2	.003	.002	.2
Phalaropes	927	1.428	2.856	78.2
Gulls	12	.019	.010	1.0
Jaegers	4	.006	.003	.3
Alcids	2	.003	.006	.2
Miscellaneous	7	.011	.006	.6

Table 7: Summary of Non-grid Bird Observations, Eastern Area Cruise 7

	<i>Inside Channel Islands</i>				<i>Outside Channel Islands</i>			
	Number	% of Total	#/lin mile	% in flocks ⁺				
Loon sp.	173	7.9	1.99	95				
Black-footed Albatross	1	.1	.011	0	13	.6	.110	0
Laysan Albatross	0				2	.1	.017	0
Fulmar	0				1	.1	.008	0
Sooty Shearwater	230	10.5	2.64	98	1970	97.3	16.70	98
Pink-footed Shearwater	25	1.1	.288	50*	65	3.2	.550	80
Brown Pelican	14	.6	.161	50*				
Cormorant sp.	5	.2	.057	0				
Pelagic Cormorant	2	.1	.023	0				
Blue-footed Booby	0				1	.1	.008	0
Black Brant	18	.8	.207	100				
Northern Phalarope	1780	81.5	20.27	100				
Red Phalarope	0				4	.2	.034	0
Phalarope sp.	0				7	.3	.059	0
Pomarine Jaeger	1	.1	.011	0	15	.7	.127	0
Long-tailed Jaeger	0				1	.1	.008	0
Jaeger sp.	0				19	.9	.161	0
Western Gull	28	1.3	.310	10	13	.6	.110	10
Herring Gull	1	.1	.011	0	5	.2	.042	0
California Gull	136	6.2	1.56	95	1	.1	.008	0
Ring-billed Gull	1	.1	.011	0				
Bonaparte's Gull	27	1.2	.322	95				
Sabine's Gull					7	.3	.059	0
Tern sp.	1	.1	.011	0	2	.1	.017	0
Rhinoceros Auklet	0				2	.1	.017	0
TOTALS:	2184				2026			
Total miles		87				118		

*Mixed Flocks

+ Percentages estimated

4	13	10
9	16	9
5	2	1
		1
		1
		1

0920	
0618	
<hr/>	
492	
120	